ACADEMIC VITA

Tammy VanDeGrift
Vassallo Endowed Professor of Computer Science, Donald P. Shiley School of Engineering
University of Portland
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CURRENT:

Professor of Computer Science, Donald P. Shiley School of Engineering, Since July 2019
Chair of Computer Science, Donald P. Shiley School of Engineering, Since July 2021
Brother Godfrey Vassallo Distinguished Professor of Engineering, Since August 2022

ACADEMIC APPOINTMENTS:

Graduate Research and Teaching Assistant, Computer Science & Engineering
University of Washington, 1999 – 2005
Instructor, Computer Science & Engineering, University of Washington, Autumn 2001 and Winter 2003, Non-tenure-track
Courses Taught: Teaching Assistant Training (CSE 590IT), Introduction to Computer Programming (CSE 142)
Assistant Professor, Computer Science, Donald P. Shiley School of Engineering, University of Portland, Aug 2005 – June 2011
Associate Professor, Computer Science, Donald P. Shiley School of Engineering, University of Portland, July 2011 – June 2019
Professor, Computer Science, Donald P. Shiley School of Engineering, University of Portland, July 2019 – Current

COURSES TAUGHT AT UNIVERSITY OF PORTLAND:

Engineering Courses:
Introduction to Engineering (EGR 110)
Multimedia Processing * (EE 111)
Analysis of Engineering Data (EGR 361)
Multi-Disciplinary Capstone II (EGR 484)
EGR Capstone Workshop (EGR 083/084)
Computer Science Courses:
Introduction to Scientific Computing * (CS 201)
Introduction to Computer Science (CS 203)
Computer Science Lab (CS 273)
Data Structures (CS 305)
Data Structures Lab (CS 373)
Analysis of Algorithms (CS 324)
Theory of Computation (CS 357)
Computer Networks and Internetworking (CS 445/545)
Computational Biology * (CS 423/CS 523/BIO 423)
Introduction to Big Data Analytics * (CS 438/CS 538)
Computer Science Capstone I (CS 483)
Computer Science Capstone II (CS 484)
CS Capstone Workshop (CS 083/CS 084)

*developed course for first-time offering

EDUCATION:

Gustavus Adolphus College, St. Peter, MN 1995-1999 B.A.
Honors Computer Science, Honors Mathematics
University of Washington, Seattle, WA 1999-2001 M.S.
Computer Science & Engineering
University of Washington, Seattle, WA 2001-2005 Ph.D
Computer Science & Engineering
Thesis: Scheduling Protocols for Stream Merging in Media-on-Demand Systems
Advisor: Richard E. Ladner

ADMINISTRATIVE POSITIONS, PROFESSIONAL EXPERIENCE, CONSULTING:

Associate Dean, Donald P. Shiley School of Engineering, University of Portland, 2012 – 2015
National Science Foundation Panelist (grant proposal reviewer)
March 2007, July 2010, May 2014, February 2017, May 2019, February 2020, June 2020, January 2021, May 2021, March 2022, May 2023, September 2023
Chair of Computer Science, Donald P. Shiley School of Engineering, University of Portland, July 2021 – current

RESEARCH INTERESTS:

Computer science education, educational technology, multimedia processing, media delivery and networks, pedagogy, ethics, software engineering

SCHOLARLY WORK:

Grants Awarded:

Butine Faculty Development Grant. Studying the Design Processes of Novice Software Engineers, Funded by University of Portland, Summer 2007, $3,594.00.
PI. National Science Foundation CCLI Phase I Grant 0736343. Commonsense Computing: What students know before we teach, 2008 – 2011, $22,160.00.
Academic Technology Roundtable Grant. School of Engineering Resource Site for Engineering and Computer Science Professions, Funded by University of Portland, 2012 – 2013, $2000.00.
Co-PI with Sharon A. Jones. National Science Foundation STEP 1317238: Increasing Retention in Engineering and Computer Science with a Focus on At-Risk First Year and Sophomore Students, 2013 – 2018, $499,939.00.
Dundon-Berchtold Grant Recipient for 2014 - 2015. How engineering and computer science students' value diversity in their profession, with Ed.D. student Zulema Naegele, Funded by University of Portland, 2014 – 2015, $2500.00.
Provost's Initiative for Undergraduate Research. Effect of NIK on Gene Expression in T cells of Mice, with undergraduate student Sara Perkins, Funded by University of Portland, Spring 2016, $1,000.00.
Shiley Grant for Faculty Research and Development. EdX Courses in Microsoft Certificate Program in Data Science, Funded by Shiley School of Engineering, Spring 2017, $516.00.
REFLECT STEM Innovation Fellow. National Science Foundation 1710735 (PI: Salomone), 2018 - 2020, $3000.00 (fellow stipend).

KEEN Module Development Grant. KEEN University of Portland, Spring 2019, $1750.00.
Shiley Grant for Faculty Research and Development. Debugging in Data Structures, Funded through Shiley School of Engineering, Summer 2021, $7150.00.
Sweo Fellowship. Supporting First-Year Women and Computer Science Students, Funded through Shiley School of Engineering, 2021-2022, $14375.00.
Sweo Fellowship. Mentorship During Transitions, Funded through Shiley School of Engineering, 2022-2023, $9930.00.
KEEN Module Development Grant: Ethics and Big Data. KEEN University of Portland, Spring 2023, $1100.00.
Shiley Grant for Faculty Research and Development. Writing Support for Data Science and Ethics, Funded through Shiley School of Engineering, Summer 2023, $5000.00.
Sweo Fellowship. Sharing Engineering, Computer Science, Shiley, and UP with Kids, Funded through Shiley School of Engineering, 2023-2024, $15000.00.

Unfunded Grant Proposals:

PI. DDDAS-TMRP Collaborative Research: Media-on-Demand at Anytime, to Anyone, Anywhere. National Science Foundation 0538802. Requested funds: $183,999.00. Submitted June 2005.
Co-PI with Jon Down. Program Development for the Kern Entrepreneurship Education Network (KEEN). Requested funds: $74,500.00. Submitted July 2011.
Co-PI with Patricia Morrell, Julie Kalnin and Shazib Vijlee. REES: Robotics Education for Elementary-Aged Students. National Science Foundation 1759417. Requested funds: $637,210.00. Submitted September 2017 to ITEST.
PI with Patricia Morrell and Julie Kalnin. DEEPEN: Developing Elementary-Aged Engineering Projects and Engineer-educator Networks. National Science Foundation 1812682. Requested funds: $449,992.00. Submitted November 2017 to DRK12.
Co-PI with Janet Davis (Whitman). Distributed Mentoring for PUI Job Applicants. Association for Computing Machinery SIGCSE Special Projects Grant. Requested funds: $5000.00. Submitted May 2021.
Butine Faculty Development Grant, Support to attend the 2023 ACM SIGCSE Symposium. University of Portland. Requested funds: $2000.00. Submitted October 2022.
Sweo Fellowship. Supporting computing skills and professional development with Peer Assistant Leaders (PALs). Shiley School of Engineering. Requested funds: $15000.00. Submitted May 2023.
Butine Faculty Development Grant, Support to register and publish paper in the 2024 ACM SIGCSE Symposium. University of Portland. Requested funds: $1380.00. Submitted October 2023.

Publications (Peer-reviewed):

Acceptance rates provided if known
Student researcher indicated with #

1. **Tammy VanDeGrift** and Richard Anderson. Learning to Support the Instructor: Classroom Assessment Tools as Discussion Frameworks in CS 1. In *Proceedings of the 7th*

Annual Conference on Innovation and Technology in Computer Science Education, 2002. [acceptance rate = 42%]

2. Sarah Schwarm and **Tammy VanDeGrift**. Using Classroom Assessment to Detect Students' Misunderstanding and Promote Metacognitive Thinking. In *Proceedings of the International Conference of the Learning Sciences*, 2002.
3. Laurie Murphy, Kenneth Blaha, **Tammy VanDeGrift**, Steven Wolfman, and Carol Zander. Active and Cooperative Learning Techniques for the Computer Science Classroom. *Journal of Computing Sciences in Colleges*, vol. 18, no. 2, December 2002.
4. Richard J. Anderson, Ruth Anderson, **Tammy VanDeGrift**, Steven Wolfman, and Ken Yasuhara. Interaction Patterns with a Classroom Feedback System: Making Time for Feedback. In *Proceedings of Computer Human Interaction (CHI),* 2003. [acceptance rate interactive poster = 38%]
5. Richard J. Anderson, Ruth Anderson**, Tammy VanDeGrift**, Steven Wolfman, and Ken Yasuhara. Promoting Interaction in Large Classes with Computer-Mediated Feedback. In *Proceedings of Computer Support for Collaborative Learning (CSCL)*, 2003. [acceptance rate = 30%]
6. Richard J. Anderson, Ruth Anderson, **Tammy VanDeGrift**, Steven A.Wolfman, and Ken Yasuhara. Classroom Presentation from the Tablet PC. In *Proceedings of the 8th Annual Conference on Innovation and Technology in Computer Science Education,* 2003.
7. Sarah Schwarm and **Tammy VanDeGrift**. Making Connections: Using Classroom Assessment to Elicit Students' Prior Knowledge and Construction of Concepts. In *Proceedings of the 8th Annual Conference on Innovation and Technology in Computer Science Education*, 2003. [acceptance rate = 34.1%]
8. Richard Anderson, Jay Beavers, **Tammy VanDeGrift**, and Fred Videon. Videoconferencing and Presentation Support for Synchronous Distance Learning, In *Proceedings of Frontiers in Education Conference*, 2003.
9. **Tammy VanDeGrift**. Coupling Pair Programming and Writing: Learning About Students' Perceptions and Processes, In *Proceedings of the 35th Technical Symposium on Computer Science Education,* 2004. [acceptance rate = 28%]
10. Richard Anderson, Ruth Anderson, Beth Simon, Steven A. Wolfman, **Tammy VanDeGrift**, and Ken Yasuhara. Experiences with a tablet PC based lecture presentation system in computer science courses, In *Proceedings of the 35th Technical Symposium on Computer Science Education,* 2004. [acceptance rate = 28%]
11. Angela Linse, Jennifer Turns, Jessica M. Yellin, and **Tammy VanDeGrift**. Preparing Future Engineering Faculty: Initial Outcomes of an Innovative Teaching Portfolio Program. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition*, 2004.
12. Sally Fincher, Marian Petre, Josh Tenenberg ***et al***. A multi-national, multi-institutional study of student-generated software designs. In *Proceedings of the 4th Annual Finnish / Baltic Sea Conference on Computer Science Education,* 2004.
13. Ken Blaha, Alvaro Monge, Dean Sanders, Beth Simon, and **Tammy VanDeGrift**. Do Students Recognize Ambiguity in Software Design? A Multi-national, Multi-institutional Report. In *Proceedings of the 27th International Conference on Software Engineering (ICSE)*, 2005.
14. Josh Tenenberg, Sally Fincher, Ken Blaha, Dennis Bouvier, Tzu-Yi Chen, Donald Chinn, Stephen Cooper, Anna Eckerdal, Hubert Johnson, Robert McCartney, Alvaro Monge, Jan Erik Mostrom, Marian Petre, Kris Powers, Mark Ratcliffe, Anthony Robins, Dean Sanders, Leslie Schwartzman, Beth Simon, Carol Stoker, Allison Elliot Tew, and **Tammy**

VanDeGrift. Students Designing Software: A Multi-National, Multi-Institutional Study. *Informatics in Education, 4(1)*, 2005, pp. 143 – 162.

15. Amotz Bar-Noy, Richard E. Ladner, Tami Tamir, and **Tammy VanDeGrift**. Windows scheduling of arbitrary lengths on parallel machines. In *Proceedings of the 17th Annual ACM Symposium on Parallelism in Algorithms and Architectures (SPAA)*, 2005, pp. 56 – 65.
16. Laurie Murphy, Brad Richards, **Tammy VanDeGrift**, and Brent Wilson. Models for Computer Science K-12 Outreach Activities. *The Journal of Computing Sciences in Colleges, 21(1)*, 2005, pp. 274 – 276.
17. Amotz Bar-Noy, Justin Goshi, Richard E. Ladner, and **Tammy VanDeGrift**. Stream Merging for Live Continuous Broadcast with Time-Shifting. In *Proceedings of the Second (IEEE) International Conference on Broadband Networks (BROADNETS)*, 2005, pp. 953 – 962.
18. Jennifer Turns, Angela Linse, **Tammy VanDeGrift**, Matt Eliot, Jana Jones, Steve Lappenbusch. Using Diversity Statements to Promote Engagement with Diversity and Teaching. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition,* 2006.
19. **Tammy VanDeGrift** and Janet Davis. The Journey to a Teaching-Oriented Faculty Position: A Handbook of Advice for Graduate Students. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition*, 2006.
20. **Tammy VanDeGrift**, Sheryl Burgstahler, Richard Ladner, and Annemarie Poginy#. The Game of Life Workshop – Reaching Out to High School Students with Disabilities. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition,* 2006. [Won Best Paper Award (PIC IV)]
21. **Tammy VanDeGrift**, Beth Simon, Dean Sanders, and Ken Blaha. Do Students Recognize Ambiguity in Software Specifications? A Multi-national, Multi-institutional Report. *Software Engineering Education in the Modern Age*, Lecture Notes in Computer Science 4309, Paola Inverardi and Mehdi Jazayeri (editors), Springer, 2006.
22. **Tammy VanDeGrift**. Encouraging Creativity in Introductory Computer Science Programming Assignments. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition,* 2007.
23. Donald Chinn and **Tammy VanDeGrift**. Uncovering Student Values for Hiring in the Software Industry. In *Proceedings of the International Computing Education Research (ICER) Workshop,* 2007. [acceptance rate = 58%]
24. Donald Chinn and **Tammy VanDeGrift**. Uncovering Student Values for Hiring in the Software Industry. *Journal on Educational Resources in Computing, 7*(4), January, 2008.
25. Richard E. Ladner and **Tammy VanDeGrift**. The Game of Life – An Outreach Model for High School Students with Disabilities (Special Session). In *Proceedings of the 39th Technical Symposium on Computer Science Education*, 2008. [acceptance rate = 30.1%]
26. Donald Chinn and **Tammy VanDeGrift**. Gender and Diversity in Hiring Software Professionals: What Do Students Say?. In *Proceedings of the Fourth International Computing Education Research (ICER) Workshop*, 2008. [acceptance rate = 35%]
27. Donald Chinn and **Tammy VanDeGrift**. What Students Say about Gender in Hiring Software Professionals. In *Proceedings of the ACM Innovation and Technology in Computer Science Education Conference*, 2008. [acceptance rate = 40%]
28. **Tammy VanDeGrift** and Donald Chinn. An Exercise to Engage Computing Students in Discussions of Professional Issues, In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition,* 2009.

29. Robert McCartney, Dennis Bouvier, Tzu-Yi Chen, Gary Lewandowski, Kate Sanders, Beth Simon and **Tammy VanDeGrift**. Commonsense Computing (episode 5): Algorithm Efficiency and Balloon Testing. In *Proceedings of the Fifth International Computing Education Research Workshop*, 2009. [acceptance rate = 54%]
30. Robert McCartney, Dennis Bouvier, Tzu-Yi Chen, Gary Lewandowski, Kate Sanders, Beth Simon, and Tammy VanDeGrift. Work in progress – commonsense probability: Preconceptions of entering engineering students. In *Proceedings of the 39th IEEE Frontiers in Education Conference*, 2009.
31. Dennis Bouvier, Tzu-Yi Chen, Gary Lewandowski, Robert McCartney, Kate Sanders, Beth Simon and **Tammy VanDeGrift**. Commonsense Understanding of Concurrency: Computing Students and Concert Tickets. *Communications of the ACM*, July, 2010.
32. **Tammy VanDeGrift**, Dennis Bouvier, Tzu-Yi Chen, Gary Lewandowski, Robert McCartney, Beth Simon. Commonsense Computing (episode 6): Logic is Harder than Pie. In *Proceedings of Koli Calling*, 2010.
33. Tamara Caruso[#], Natalie Hill[#], **Tammy VanDeGrift**, and Beth Simon. Experience report: Getting novice programmers to THINK about improving their software development process. In *Proceedings of the 42nd ACM Technical Symposium on Computer Science Education*, 2011. [acceptance rate = 34%]
34. Richard Ladner and **Tammy VanDeGrift**. Introduction to Special Issue (Part 1): Broadening Participation in Computing Education. *ACM Transactions on Computing Education (TOCE)*, 11:2, July 2011.
35. Richard Ladner and **Tammy VanDeGrift**. Introduction to Special Issue (Part 2): Broadening Participation in Computing Education. *ACM Transactions on Computing Education (TOCE)*, 11:3, October 2011.
36. Amotz Bar-Noy, Richard E. Ladner, Tami Tamir, and **Tammy VanDeGrift**. Windows scheduling of arbitrary-length jobs on multiple machines. *Journal of Scheduling*, 15, January, 2012, pp. 141 – 155.
37. Dennis Bouvier, Tzu-Yi Chen, Gary Lewandowski, Robert McCartney, Kate Sanders, and **Tammy VanDeGrift**. User Interface Evaluation by Novices. In *the Proceedings of the ACM Conference on Innovation and Technology in Computer Science Education,* 2012*.* [acceptance rate = 45%]
38. **Tammy VanDeGrift** and Jon Down. Leveraging University Entrepreneurship Center Programs as a Means to Enrich Engineering Education. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition*, 2014.
39. Sharon A. Jones, Zulema Naegele, and **Tammy VanDeGrift**. Increasing Retention in Engineering and Computer Science with a Focus on Academically At-Risk First Year and Sophomore Students. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition*, 2014.
40. **Tammy VanDeGrift**. Supporting Creativity and User Interaction in CS 1 Homework Assignments. In *Proceedings of the ACM Special Interest Group in Computer Science Education (SIGCSE) Symposium,* 2015. [acceptance rate = 36%]
41. Caitlin Cairncross, **Tammy VanDeGrift**, Sharon A. Jones, and Zulema Naegele. Building an Academic Success Program for At-Risk Engineering Students. In *Proceedings of the First Annual Mid Years Engineering Experience (MYEE) Conference,* 2015.
42. Caitlin Cairncross, Sharon A. Jones, Zulema Naegele, and **Tammy VanDeGrift**. Building a Summer Bridge Program to Increase Retention and Academic Success for First-Year Engineering Students. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition*, 2015.

43. Caitlin Cairncross, **Tammy VanDeGrift**, Sharon Jones, Lindsay Chelton. Best Practices for Advising At-Risk First-Year Engineering Students. In *Proceedings of the 7th First Year Engineering Experience Conference*, 2015.
44. **Tammy VanDeGrift**. Art in Theory of Computation. *Journal of Computing Sciences in Colleges*, vol 32, no 1, 2016, pp. 162 – 168.
45. Haiyan Cheng, **Tammy VanDeGrift**, Shereen Khoja, Brent Wilson. Computer science program evaluation and curriculum assessment: panel discussion. *Journal of Computing Sciences in Colleges*, vol 32, no 1, 2016, pp. 171 – 172.
46. **Tammy VanDeGrift**, Heather Dillon, and Loreal Camp#. Changing the Engineering Student Culture with Respect to Academic Integrity and Ethics. *Journal of Science and Engineering Ethics*, vol 23, no 4, 2016.
47. **Tammy VanDeGrift**. POGIL Activities in Data Structures: What do Students Value? In *Proceedings of the ACM Special Interest Group in Computer Science Education (SIGCSE) Symposium,* 2017. [acceptance rate = 30%]
48. **Tammy VanDeGrift** and Sherry Liao#. Helping First-Year Engineering Students Select a Major. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition*, 2017.
49. **Tammy VanDeGrift**. Implementation Projects in a Computing Theory Course. *Journal of Computing Sciences in Colleges*, vol 31, no 1, 2017, pages 148 – 155.
50. Haiyan Cheng, **Tammy VanDeGrift**, Shereen Khoja, Brent Wilson. Strategies for increasing undergraduate women in computer science. *Journal of Computing Sciences in Colleges*, vol 31, no 1, 2017, pages 129 – 130.
51. **Tammy VanDeGrift** and Tzu-Yi Chen. User Interface Evaluation: Comparison of Novices to Upperclass Computer Science Students. In *Proceedings of the 2018 STEM-STEAM Hawaii University International Conference*, 2018.
52. **Tammy VanDeGrift**. Compare and Contrast in Data Structures. *Journal of Computing Sciences in Colleges*, vol 34, no 1, 2018, pp. 195 – 201.
53. **Tammy VanDeGrift**. Blending Team, Paired, and Individual Work in a Computing Course: Using Best Practices. In *Proceedings of the 2019 STEM-STEAM Hawaii University International Conference*, 2019.
54. Haiyan Cheng and **Tammy VanDeGrift**. Course Models for Teaching Data Science. *Journal of Computing Sciences in Colleges*, vol 35, no 1, 2019.
55. **Tammy VanDeGrift**. Applying the Design Process to Life Goals: An Experience Report from a Capstone Course. *Proceedings of the ACM Special Interest Group in Computer Science Education (SIGCSE) Symposium,* 2020. [acceptance rate = 31%]
56. Haiyan Cheng, Shereen Khoja, Anna Ritz, and **Tammy VanDeGrift**. Supporting and Teaching Students at Liberal Arts Colleges in Online Courses. *Journal of Computing Sciences in Colleges*, vol 36, no 1, 2020, pages 47 – 48.
57. Janet Davis, Andrea Tartaro, and **Tammy VanDeGrift**. Demystifying the Tenure-Track Faculty Search in Computer Science at Primarily Undergraduate Institutions. In *Proceedings of the ACM Special Interest Group in Computer Science Education (SIGCSE) Symposium,* 2021. [acceptance rate = 31%]
58. Heather Dillon and **Tammy VanDeGrift**. Creating an Inclusive Engineering Student Culture Through Diverse Teams: Instructor-Led and Student-Led Approaches. In *Proceedings of the American Society for Engineering Education Conference,* July 2021.
59. Haiyan Cheng, Janet Davis, Shereen Khoja, and **Tammy VanDeGrift**. Expanding Career Pathways: The Joy of Teaching Computer Science and Predominantly Undergraduate

Liberal Arts Institutions. *Journal of Computing Sciences in Colleges*, vol 37, no 1, 2021, pages 14 – 17.

60. **Tammy VanDeGrift**. Researching Expensive Software Bugs: A Writing Assignment and Activity for Computing Students. *Journal of Computing Sciences in Colleges*, vol 37, no 1, 2021, pages 28 – 37.
61. Sharon A. Jones, Caitlin Cairncross, **Tammy VanDeGrift**, and Julie Kalnin. Persistence of Students who Begin Engineering Programs in Precalculus. *Advances in Engineering Education Journal,* vol 9, no 4, October 2021.
62. **Tammy VanDeGrift**. Post-Exam Videos for Assessment in Computing Courses: See and Hear Students' Thinking. In *Proceedings of the ACM Special Interest Group in Computer Science Education (SIGCSE) Symposium,* 2022.
63. **Tammy VanDeGrift.** Alumni as Adjunct Faculty and Mentors for Computer Science 1 Students. *Journal of Computing Sciences in Colleges,* vol 38, no 1, 2022, pages 14 - 26.
64. Shereen Khoja and **Tammy VanDeGrift**. Panel: Professionals' Perspectives on Liberal Arts and Computing Skills. *Journal of Computing Sciences in Colleges,* vol 38, no 1, 2022, pages 122 - 124.
65. **Tammy VanDeGrift**. Alumni as Teachers and Mentors for CS 1 Students: Solving the Staffing Shortage and Students' Reflections about Career and College Advice. In *Proceedings of the ACM Special Interest Group in Computer Science Education (SIGCSE) Symposium,* 2023, pages 1124 - 1130.
66. **Tammy VanDeGrift**. Students' Reflections on Computer Science, the Liberal Arts, and the Greater Good. In *Proceedings of the 2023 STEM-STEAM Hawaii University International Conference*, 2023.

Publications (Not peer-reviewed):

N1. Sharon A. Jones, Caitlin Cairncross, and **Tammy VanDeGrift**. Using Assessment to Continuously Improve the Retention & Persistence of At-Risk Engineering Students. In *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference and Exposition,* 2017.

Presentations (external to UP):
(If other names are included, the presentation was collaborative)

P1. Learning to Support the Instructor: Classroom Assessment Tools as Discussion Frameworks in CS 1. Seventh Annual Conference on Innovation and Technology in Computer Science Education (ACM ITiCSE), June 2002.
P2. Using Classroom Assessment to Detect Students' Misunderstanding and Promote Metacognitive Thinking. International Conference of the Learning Sciences (ICLS), October 2002.
P3. Active and Cooperative Learning Techniques for the Computer Science Classroom. Fourth Annual Consortium for Computing Sciences in Colleges (CCSC) Northwestern Regional Conference, October 2002.
P4. Classroom Presentation from the Tablet PC. Eighth Annual Conference on Innovation and Technology in Computer Science Education (ACM ITiCSE), July 2003.
P5. Making Connections: Using Classroom Assessment to Elicit Students' Prior Knowledge and Construction of Concepts. Eighth Annual Conference on Innovation and Technology in Computer Science Education (ACM ITiCSE), July 2003.

P6. Videoconferencing and Presentation Support for Synchronous Distance Learning. Frontiers in Education Conference (FIE), November 2003.
P7. Coupling Pair Programming and Writing: Learning About Students' Perceptions and Processes. The 35th Technical Symposium on Computer Science Education (ACM SIGCSE), March 2004.
P8. Preparing Future Engineering Faculty: Initial Outcomes of an Innovative Teaching Portfolio Program. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2004.
P9. Models for Computer Science K-12 Outreach Activities. Seventh Annual CCSC Northwestern Regional Conference, October 2005.
P10. The Journey to a Teaching-Oriented Faculty Position: A Handbook of Advice for Graduate Students. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2006.
P11. The Game of Life Workshop – Reaching Out to High School Students with Disabilities. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2006.
P12. Encouraging Creativity in Introductory Computer Science Programming Assignments. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2007.
P13. Uncovering Student Values for Hiring in the Software Industry. The International Computing Education Research (ICER) Workshop, September 2007.
P14. The Game of Life – An Outreach Model for High School Students With Disabilities (Special Session). The 39th Technical Symposium on Computer Science Education (ACM SIGCSE), March 2008.
P15. An Exercise to Engage Computing Students in Discussions of Professional Issues. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2009.
P16. Commonsense Computing (episode 5): Algorithm Efficiency and Balloon Testing. The International Computing Education Research (ICER) Workshop, August 2009.
P17. Leveraging Commonsense Computing. Workshop at the 41st Technical Symposium on Computer Science Education (ACM SIGCSE), March 2010.
P18. A First-Year Design Project Combining LEGO® MINDSTORMS® Kits and Other Materials. Pacific Northwest Section American Society for Engineering Education, March 2012.
P19. Bonnie MacKellar, Margaret Menzin, Marc Smith, and Tammy VanDeGrift. Computer Scientists Put the Informatics into Bio, Health, and Medical Informatics Education. Presentation (BOF) at the ACM Symposium for the Special Interest Group on Computer Science Education (ACM SIGCSE), March 2013.
P20. Supporting the success of multidisciplinary undergraduate computational biology teams through curriculum and pedagogy. Research in Computational Molecular Biology (RECOMB) – Bioinformatics Education Conference, April 2014.
P21. Leveraging University Entrepreneurship Center Programs as a Means to Enrich Engineering Education. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2014.
P22. Increasing Retention in Engineering and Computer Science with a Focus on Academically At-Risk First Year and Sophomore Students. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2014.

P23. Supporting Creativity and User Interaction in CS 1 Homework Assignments. ACM Special Interest Group in Computer Science Education (ACM SIGCSE) Symposium, March 2015.
P24. Building a Summer Bridge Program to Increase Retention and Academic Success for First-year Engineering Students. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2015.
P25. Increasing Retention in Engineering and Computer Science with a Focus on At-Risk First Year and Sophomore Students. At the ACM Special Interest in Computer Science Education (ACM SIGCSE) Symposium, NSF Project Showcase, March 2016.
P26. Haiyan Cheng, Shereen Khoja, Tammy VanDeGrift, Brent Wilson. Panel Discussion: Computer Science Program Evaluation and Curriculum Assessment. Consortium for Computing Science in Colleges, October 2016.
P27. Sara Perkins[#] and Tammy VanDeGrift. Effect of NIK on Gene Expression in T cells of Mice. Student poster competition at the Consortium for Computing Science in Colleges, October 2016. [won best student poster]
P28. Art in Theory of Computation. Consortium for Computing Science in Colleges, October 2016.
P29. POGIL in Data Structures: What do Students Value? ACM Special Interest Group in Computer Science Education (ACM SIGCSE) Symposium, March 2017.
P30. Athina Petropulu, Rashaunda Henderson, Shelly Heller, Tammy VanDeGrift. Getting the Mentoring You Need to Succeed. Panel at the Launching Academics on the Tenure Track: an Intentional Community in Engineering Conference, May 2017.
P31. Athina Petropulu, Shalinee Kishore, Suneeta Ramaswami, Tammy VanDeGrift. Navigating Organizations and Tenure. Panel at the Launching Academics on the Tenure Track: an Intentional Community in Engineering Conference, May 2017.
P32. Eve Riskin, Katie Wilson, Shalinee Kishore, Tammy VanDeGrift. Mastering Teaching. Panel at the Launching Academics on the Tenure Track: an Intentional Community in Engineering Conference, May 2017.
P33. Helping First-Year Engineering Students Select a Major. American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2017.
P34. Using Assessment to Continuously Improve the Retention & Persistence of At-Risk Engineering Students (Poster). American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 2017.
P35. Haiyan Cheng, Tammy VanDeGrift, Shereen Kjoha, Brent Wilson. Strategies for Increasing undergraduate women in computer science, Consortium for Computing Science in Colleges, October 2017.
P36. Implementation projects in a computing theory course. Consortium for Computing Science in Colleges, October 2017.
P37. User Interface Evaluation: Comparison of Novices to Upperclass Computer Science Students. STEM-STEAM Hawaii University International Conference, June 2018.
P38. Aaron Banobi[#], Alex Hadi[#], Emily McClung[#], Mitchell Nguyen[#], Aitana Shough[#], and Tammy VanDeGrift. Locating CRISPR off-target sites with local sequence alignment. Student poster at the Northwest Quantitative Biology Conference, September 2018.
P39. Compare and Contrast in Data Structures. Consortium for Computing Science in Colleges, October 2018.
P40. Blending Team, Paired, and Individual Work in a Computing Course: Using Best Practices. STEM-STEAM Hawaii University International Conference, June 2019.

P41. Haiyan Cheng and Tammy VanDeGrift. Course Models for Teaching Data Science. Consortium for Computing Science in Colleges, October 2019.
P42. Applying the Design Process to Life Goals: An Experience Report from a Capstone Course. ACM Special Interest Group in Computer Science Education (ACM SIGCSE) Symposium, March 2020. (virtual via slide presentation due to covid-19)
P43. Haiyan Cheng, Shereen Khoja, Anna Ritz, and Tammy VanDeGrift. Panel: Supporting and Teaching Students at Liberal Arts Colleges in Online Courses. Consortium for Computing Science in Colleges, October 2020. (online due to covid-19)
P44. Jen Symons, Niki Schulz, and Tammy VanDeGrift. Workshop: Compassionate Listening through Peer Observation of Teaching. The Making of a T1 University, October 2020. (online due to covid-19)
P45. Janet Davis, Andrea Tartaro, and Tammy VanDeGrift. Demystifying the Tenure-Track Faculty Search in Computer Science at Primarily Undergraduate Institutions: A Handbook of Advice for Job Seekers. ACM Special Interest Group in Computer Science Education (ACM SIGCSE) Symposium, March 2021. (online due to covid-19)
P46. Heather Dillon and Tammy VanDeGrift. Creating an Inclusive Engineering Student Culture Through Diverse Teams: Instructor-Led and Student-Led Approaches, American Society for Engineering Education (ASEE) Annual Conference and Exposition, July 2021. (online due to covid-19).
P47. Haiyan Cheng, Janet Davis, Shereen Khoja, and Tammy VanDeGrift. Panel: Expanding Career Pathways: The Joy of Teaching Computer Science and Predominantly Undergraduate Liberal Arts Institutions. Consortium for Computing Science in Colleges, October 2021. (online due to covid-19)
P48. Researching Expensive Software Bugs: A Writing Assignment and Activity for Computing Students. Consortium for Computing Science in Colleges, October 2021. (online due to covid-19)
P49. Post-Exam Videos for Assessment in Computing Courses: See and Hear Students' Thinking. ACM Special Interest Group in Computer Science Education (ACM SIGCSE) Symposium, March 2022.
P50. Post-Exam Videos for Assessment in Computing Courses. Guest Speaker at University of Washington Computer Science Education Seminar (CSE 590ET), April 2022.
P51. Alumni as Adjunct Faculty and Mentors for Computer Science 1 Students. Consortium for Computing Science in Colleges, November 2022.
P52. Shereen Khoja and Tammy VanDeGrift. Panel: Professionals' Perspectives on Liberal Arts and Computing Skills. Consortium for Computing Science in Colleges, November 2022.
P53. Alumni as Teachers and Mentors for CS 1 Students: Solving the Staffing Shortage and Students' Reflections about Career and College Advice. ACM Special Interest Group in Computer Science Education (ACM SIGCSE) Symposium, March 2023.
P54. Students' Reflections on Computer Science, the Liberal Arts, and the Greater Good. STEM-STEAM Hawaii University International Conference, June 2023.

Presentations (internal to UP):

P55. Speaker, Technology Trends for Conference for High School Students, May 12, 2007.
P56. Speech for Dr. Andrew Nuxoll's Promotion to Associate Professor with Tenure, Faculty Gala, May 2013.
P57. Panelist, Organized by Karen Eifler. Teaching Circles Workshop for University of Portland Faculty, January 2014.

P58. Panelist, What Does the Future Hold. Orientation Weekend. August 23, 2014.
P59. Invited Lecture on Bioinformatics, Genetics Course. November 11, 2014.
P60. Shiley School of Engineering Opportunities. Welcome Session for Clark College students. December 12, 2014.
P61. Making the Engineering Classroom Welcoming for All. University of Portland TechTalk. January 23, 2015. Available at: https://sites.up.edu/techtalk/making-the-engineering-classroom-welcoming-for-all/
P62. Campus Climate in the School of Engineering. Presentation at the Dundon-Berchtold Dinner. University of Portland. April 19, 2015. Co-presenter: Zulema Naegele[#].
P63. Mindset: Strategies for Teaching and Advising. Workshop for Faculty Development Day. May 2015. Co-presenters: Caitlin Cairncross, Julie Kalnin, Maria Erb.
P64. Panelist, Graduate School Opportunities. Math Department Colloquium Series. September 24, 2015.
P65. Campus Media in the Classroom. Information Services and the Library Demo Session. September 15, 2015. Co-presenter: Nikolene Schulz.
P66. Freeing Up Class Time for Active Learning. University of Portland tech talk. November 6, 2015. Co-presenter: Nikolene Schulz. Available at: https://sites.up.edu/techtalk/freeing-up-class-time-for-active-learning/
P67. Panelist, Grit and student success. STEP Student Workshop. March 18, 2016.
P68. Whistling Vivaldi: How Stereotypes Affect us and what we can do. Faculty Development Day. University of Portland. May 3, 2016. Co-presented with several faculty from education, nursing, and CAS.
P69. Compassionate Listening through Peer Observation of Teaching. Faculty Development Day. University of Portland. May 7, 2019. Co-presenters: Cara Poor, Nikolene Schulz, Kristin Sweeney, Jennifer Symons.
P70. Intersectional Feminism: Creating Supportive Conversation at UP. Faculty Development Day. University of Portland. May 7, 2019. Co-presenters: Anissa Rogers, Sarina Saturn, Hannah Highlander.
P71. Panel: Reflection on the REFLECT project from cohort 1. REFLECT Workshop. University of Portland. May 11, 2019. Co-panelists: Jen Symons and Kristin Sweeney.
P72. Panel: Get Engaged: How to Prepare for Career Success After UP. Orientation Weekend. Aug 23, 2019. Co-panelists: Brad Franco, Hannah Highlander, Amy Cavanaugh, Audrey Fancher, Daylin Kuboyama.
P73. New Faculty Orientation: What it means to teach at UP. Aug 18, 2020. Co-panelists: Barbara Braband and Brad Franco.
P74. Diversity Dialogs Week: Panel of STEM Faculty. Jan 27, 2021. Co-panelists: Brian Fabien, Christy Ivler, and Jen Symons.
P75. Interdisciplinarity is the Future: Designing Exploration Level Courses for the Revitalized Core. Faculty Development Day. May 11, 2021. Co-presenters: Andrew Guest and Tamar More.
P76. Life and Career Preparation Through Advising and Computing Courses. Faculty Development Day. May 3, 2022. Co-presenter: Ben Tribelhorn.
P77. Contributor. The Inclusive Teaching Working Group at UP. Faculty Development Day. University of Portland. May 3, 2022. Discussion Leaders: Stephanie Salomone and Valerie Peterson.
P78. Preparing for Course Evaluations. New Shiley Faculty Workshop. Nov 16, 2022.
P79. Interpreting Course Evaluations. New Shiley Faculty Workshop. Feb 1, 2023.
P80. Tips for Annual Reflection. New Shiley Faculty Workshop. Apr 26, 2023.

STUDENT CAPSTONE AND RESEARCH PROJECTS SUPERVISED:

1. Lisa Eberle, Jason Favors, and Ben Foran. Project Santiam: Whenever Messenger. Co-advised with Steven Vegdahl. 2005 – 2006.
2. Annemarie Poginy. The Game of Life Workshop – Reaching Out to High School Students with Disabilities. Spring 2006.
3. Kristin Glanville and Ethan Prevost. Project Pilot Rock: Stanford's Lighting Schematic. 2006 – 2007.
4. Ken Lee, Michael Rumely, Vladimir Schvets, and Robert Vandermeulen. Yellowtooth: remote control via instant messenger. Co-advised with Andrew Nuxoll. 2007 – 2008.
5. William Dana, Mike Dillon, and John Guptill. Project eNVy: Network Visualization. 2008 – 2009.
6. Jeff Keagbine, Tim Meyer, Steven Rogers, and Kris Slavenski. Project Golden Spruce: Freshman Engineering Database for the University of Portland. 2009 – 2010.
7. Tamara Caruso, Natalie Hill, and Beth Simon (University of California San Diego). Getting novice programmers to think about improving their software development process. Summer 2010.
8. Alex Brotherston, Ashley Donahoo, Colton Hamm, and Matt Johnson. Project RNG: A Radiation-based Random Number Generator. Co-advised with Joseph Hoffbeck. 2010 – 2011.
9. Sam Burich, Kapua Chandler, and Kris Lewis. Project AdviseUP: Web-based scheduling and advising application. 2011 – 2012.
10. Ben Co and Tim Yandl. Research Project: Finding Motifs Associated with Neurological Disorders. Spring 2012.
11. Kekai Ariola, Eric Bergquist, and Megan Yamamoto. Project AdviseUP: Live Integration. 2012 – 2013.
12. Sherry Liao. Research Project: Developing Archival Resources for Introductory Engineering and Computer Science Students. 2012 – 2013.
13. Devon Griggs, Devin Helmgren, Emilia Holbik, and Janel Raab. Project Micromouse: Minitaur. IEEE APEC Micromouse Competition. Co-advised with Wayne Lu. 2013 – 2014.
14. Krismy Alfaro, John Liedtke, and Justice Nichols. UP Marketplace. 2014 – 2015.
15. Zulema Naegele (Ed.D student). How engineering and computer science students' value diversity in their profession. 2014 – 2015.
16. Bryce Matsuda, Caleb Piekstra, Triton Pitassi, and Jordan White. ANTS: Automated Nuxollian Team Scheduler (software for CS 368). 2015 – 2016.
17. Ryson Asuncion, Matthew Ong, Sean Pierson, and Joel Simard. An Android Tablet for Cerebral Palsy. 2015 – 2016.
18. Amelia Cole (M.A. Communication Studies student). The Humanization of Technology: An Exploration of Agenda-Setting Effects within Popular News Coverage of the Mobil Phone. Masters Committee Member. 2015 – 2016.
19. Sara Perkins. Research Project: Effect of NIK on Gene Expression in T cells of Mice. Spring 2016.
20. Parker Kimball, John Lien, Viet Phan, and Matthew Young. Human Paintbrush: An artistic virtual reality experience. Spring 2015 and Spring 2016.
21. Nerissa Lemon, DJ Milovic, Shilpa Nanja, and Jenna Phillips. Green Dot Simulation. Co-advised with Saikat Chakrabarti. 2016 – 2017.

22. Christine Chen, Matt Hino, Sara Meisburger, and Reece Teramoto. Holla-at-yo-gram: VR Hologram Display. Co-advised with Steven Vegdahl. 2016 – 2017.
23. Nicholas Accuardi, Michelle Lau, and Melanie Martinell. Global Emancipation Network Scraping Modules. 2017 – 2018.

[*note: supervision of capstone projects started counting as teaching load in Fall 2017*]

24. Alexa Baldwin, Danh Nguyen, and Elias Paraiso. TutorUP: A web-based tutor match. Spring 2018 and Spring 2019.
25. Adrian Low, David Jablonski, Noah Sperling, and Evan Sterba. Natural Language Processing for Academic Assessment. 2018 – 2019.
26. Hannah Farley, Avery Gill, Madi Schalk, Audrey Sauter, and Lauren White. Research Project: Impacts of the First-Year Women in Engineering Mentorship Program. 2021 – 2022.
27. Jennifer Brana. Research Project: ASIC Performance and Power Research. Spring 2022.
28. Emily Hoppe, Hera Malik, Aron Manalang, and Natalie Tashchuk. PlayMorse Games for Community Vision. 2022-2023.
29. Austen Furutani, Phi Nguyen, and Tyler Sakata. Data Collection and Visualization for Crop Management, Backus AgriLabs. 2023-2024.
30. Margaret Brown, Kaylee Mock, and Anna Yrjanson. Adherence Sensor for Go Baby Go Oregon. 2023-2024.
31. Emily Do, Jason Katayama, Selena Li, and Cory Marleau. Data Visualization for Truck Inventory Management, Daimler Trucks of North America. 2023-2024.

UNIVERSITY SERVICE:

University of Portland:

Current Service:

Apr 2019 – Apr 2024	Member, Committee on Committees
Aug 2020 – Current	Member, Core Curriculum Committee
Mar 2021 – Current	Member, Howard Hughes Medical Institute Inclusive Excellence Learning Community, UP Core Member
2005 – 2020 2022 – Current	Member, Baccalaureate and Opening Mass Choir

Past Service:

2006	UP Representative, Diversity in the Sciences Symposium, Seattle (October)
2006, 2007, 2009 – 2012	Blackjack Dealer, Residence Hall Casino Night (Spring)
2007 – 2012, 2014	Group Leader, Building Community: Serving to Learn (Sept)
2008 – 2010	Member, Presidential Advisory Council on Athletics
2011 – 2012	Chair, Strategic Plan Committee for Entrepreneurship, Franz Center for Leadership, Entrepreneurship, and Innovation
2011 – 2012	Member, Committee on Academic Regulations
2012 – 2013	Engineering Representative, Academic Technology Roundtable
2012 – 2015	Member, Academic Standing Committee
2012 – 2015	Engineering Liaison, Office for Students with Disabilities
2012 – 2015	Engineering Liaison, Honors Program

2012 – 2015	Member, Franz Center for Leadership, Entrepreneurship, and Innovation Advisory Committee (subgroup: Entrepreneurship)
2014	Panelist, External Review for Career Services (May)
2015 – 2021	Member, UP STEM Center Committee
2016 – 2019, 2023	Assistant Marshal, Commencement (May)
2017 – 2018	New Faculty Mentor, mentored Dr. Rajaa Alqudah (EE)
2017	Dexheimer Leadership Fellow
2016 – 2019	Senator, Academic Senate Engineering Representative
2017 – 2019	Chair, Committee on Committees
2017 – 2019	Member, Senate Executive Committee
2019 – 2020	Member, Rank & Tenure
2019 – 2020	Member, Shiley Dean Search Committee
2018 – 2020	Member, University Core Curriculum Revitalization Committee
2017 – 2020	Member, Standing Assessment Committee
2018 – 2020	Member, Phi Beta Kappa Faculty Committee
2016, 2017, 2020 – 2023	Member, Fulbright Committee
2020	Tech Buddy Mentor, mentored Dr. Attis-Josias (Nursing)
2020 – 2021	New Faculty Mentor, mentored Dr. Jordyn Wolfand (CE)
2021	Member, Search Committee for VP for Financial Affairs, (March – July)
2021 – 2022	Member, University Strategic Planning Committee
2022 – 2023	New Faculty Mentor, mentored Instructor Kate Stagl (CE)
2023	Member, Shiley representative to UP Library Committee
2023	Peer Observer of Teaching, Physics Department, spring 2023
2022 – 2023	Liaison, Shiley Rep to Shepard Academic Resource Center
2018, 2023	Faculty Representative, Orientation Parent Social (August)
2023	STEM Education Day Volunteer, Athletics (Nov)

Shiley School of Engineering:

Current Service:

2011 – Current	Faculty Advisor, Society for Women Engineers Student Chapter
2021 – Current	Chair, Computer Science Program

Past Service:

2006-07, 2007-08, 2014-15, 2015, 2015-2016, 2017-18, 2018-19	Member, Computer Science Faculty Search Committee
2007, 2015	Coordinator, EGR110 (Intro to Engineering) Course
2005 – 2009	Panelist, EGR110 Program Information Session
2006 – 2007	Content Creator, Computer Science Program Website
2006 – 2008	Member, Engineering Space Utilization Committee
2007 – 2011	Member, Engineering Computer Committee
2007 – 2011	Representative, Microsoft Dev Network Academic Alliance
2011	Acting Chair, Computer Science Program (Fall Semester)
2012 – 2015, 2017	Chaperone, NW Women in Computing Conference (Apr)
2013	Member, International Engineering Programs Committee
2012 – 2015	Member, Advisory Council for the Engineering School

2012 – 2015	Coordinator, Engineering Teaching Circles
May 2013, July 2013, Nov 2013, June 2014, July 2014	Chair, Shiley Academic Advisor Search Committee
2013 – 2016, 2018 – 2019	Engineering Faculty Representative, Weekend on the Bluff (Apr)
2013 – 2017, 2019, 2023	Engineering Faculty Representative, Family Weekend (Feb)
2005 – 2014	Engineering Faculty Representative, Engineering Admissions Open House (Dec)
2014 – 2015	Chaperone, STEP Summer Bridge Program Field Trips (June)
2016	Chaperone, LPGA Today's Women in Science and Technology Conference (June)
2016	Member, Shiley ABET Assessment Committee
2017 – 2019	Chaperone, SWE National Conference (Oct/Nov)
2017 – 2020	Chair, Shiley Ad Hoc Committee for Diversity and Inclusion
2020	Member, Computer Science Instructor Search Committee
2018-19, 2020-21	Member, Shiley Capstone Committee
2022	Chair, Computer Science Faculty Search Committee
2023	Chaperone, SWE Local Conference (Mar/Apr)
2023	Representative, Hoopla Shiley Visit Event (Feb)
2023	Tour host for high school and middle school students, UP SWE (Feb, Mar)
2023	College Fair Representative at OR MESA day, UP SWE (May)
2023	Representative, Junior/Senior Family Weekend (Nov)

SERVICE TO PROFESSION:

Current Service:

UP Representative, AccessComputing, 2017 – Current

Reviewer (all years 2005 – Current unless otherwise specified)

Conference Proceedings: ACM SIGCSE, ACM ITiCSE, ACM ICER, ASEE, CCSC-NW

Journals: Journal on Educational Resources in Computing, Journal of Systems Architecture, Handbook of Computer Networks, Computer Science Education, IEEE Transactions on Education, Journal of Engineering Education, ACM Transactions on Software Engineering

Course materials: EngageCSEdu, February 2016 – current

Past Service:

Workshop Developer, 25th Anniversary of Computer Science, Gustavus Adolphus College, 2004, Developed and prepared materials for two workshops for the CS reunion of the past 25. *Workshop titles*: "Using Computing Skills in Community Service" and "Introduction to Contextual Design and Inquiry".

Workshop Leader and Organizer, DO-IT (Disabilities, Opportunities, Internetworking, and Technology), University of Washington, July 2006, Organized and led computer science workshop for high school students with disabilities. *Workshop title*: "Game of Life and Image Processing"

SIGCSE 2008 Conference Local Arrangements Coordinator, 2007 - 2008

Mentor, MentorNet on-line community, mentored various graduate students

Session Chair, ACM SIGCSE Conference 2009, 2017
Co-editor, Special Issue on broadening participation in computing for ACM Transactions on Computing Education, Summer 2009 – October 2011
Reviewer, Scholarship applications: Grace Hopper Conference, 2009 – 2011
Advisory board member, CS camp for middle school girls, Pacific University, 2010 – 2013
Camp instructor for STEM, La Salle High School, July 2013
Holy Redeemer K-8 Science Fair Judge, March 2016
Judge, Congressional App Challenge – Congressman Earl Blumenauer, Fall 2016
UP Representative for CS, NCWIT Awards for Oregon high school students, 2016, 2018
Associate Editor for ACM Transactions on Computing Education, 2012 – Current
Partners Chair, Conference Organizing Committee for Consortium for Computing Science in Colleges 2017
Partners and Speakers Chair, Conference Organizing Committee for Consortium for Computing Science in Colleges 2018
Partners and Speakers Chair, Conference Organizing Committee for Consortium for Computing Science in Colleges 2019
National Center for Women & Technology Aspiration awards for High School Students
Table host for University of Portland, April 2016 – April 2019
Associate Editor, ACM Transactions on Computing Education, 2012 – 2022
Publicity Chair, Conference Organizing Committee for Consortium for Computing Science in Colleges 2022, April 2022 – November 2022

COMMUNITY SERVICE:

First Immanuel Lutheran Church
- Sunday School Teacher, 2017 – 2020, 2023 - Current
- Vacation Bible School Teacher, 2008 – 2019
- Choir Member, 2007 – 2022
- Chair, Congregational Life Committee, 2017 – Current (member prior to 2019)
- Member, Education Committee, 2016 – Current
- Member, Church Council, 2016 – 2019
- Various Service Projects

Portland Public Schools Volunteer
- Field trip chaperone, 2013 – Current [none during 2020-2022]
- Classroom volunteer – taught CS to grades K – 2, 2013 – 2018
- Volunteer: field day, bike to school day, reading fair, used book fair, carnival, Asian American Pacific Islander night, 2014 – Current
- Teacher Captain, PTSO Auction Committee, 2017, 2018
- Assisted with set-up for PTSO Auction/Benefit, 2019, 2020

Portland Parks and Recreation Volunteer
- Goldenball League Basketball Coach, Nov – Feb, 2017 – 2020, 2021 – 2022
- Park Stars Basketball Coach, Jan – March 2019

North Portland Soccer Club
- Assistant Coach, Aug – Oct 2019, Aug – Oct 2021

AWARDS, FELLOWSHIPS AND HONORS:

Phi Beta Kappa, 1999
Sigma Xi, The Scientific Research Society, 1999
National Science Foundation Graduate Student Fellowship, 1999 – 2002

Educator's Fellowship, Computer Science & Engineering, University of Washington, 2003 – 2004, *Awarded annually to one doctoral student in Computer Science & Engineering at the University of Washington*

Society of Women Engineers Outstanding Female Graduate Student in Computer Science & Engineering, 2004, *Awarded annually to one female student in each engineering discipline at the University of Washington*

American Society for Engineering Education Apprentice Faculty Grant Awardee, 2004, *Nationally awarded to four doctoral students or pre-tenured faculty in engineering each year*

American Society for Engineering Education Best Paper Award (PIC IV), June 2006, *Awarded to the best paper from all divisions in Program Interest Council IV.*

Who's Who Among America's Teachers, 2007

Shepard's Shepherd, Shepard Freshman Resource Center, University of Portland, 2015, 2018, *Awarded to several faculty who are nominated by first-year students.*

University of Portland Outstanding Teaching Award, Selected by Committee on Teaching and Scholarship, 2020, *Awarded annually to one UP faculty member per year*

University of Portland Culligan Award for Distinguished Service, 2021, *Awarded annually to one UP faculty member per year*

PROFESSIONAL MEMBERSHIPS:

American Society for Engineering Education (ASEE); *Divisions: Computers and Education, Educational Research and Methods, Electrical and Computer, Women in Engineering*

Association for Computing Machinery (ACM)*, SIGs: Special Interest Group in Computer Science Education*
Awarded senior member status in ACM, June 2011

Sigma Xi, The Scientific Research Society

Society of Women Engineers

PROFESSIONAL MEETINGS AND PROFESSIONAL DEVELOPMENT:

While at the University of Portland:

Acronyms:

ACM Association for Computing Machinery
ASEE American Society for Engineering Education Annual Conference & Exposition
CCSC Consortium for Computing Science in Colleges
ICER International Computing Education Research
IEEE Institute of Electrical and Electronics Engineers
FYEE First Year Engineering Education
GHC Grace Hopper Celebration of Women in Computing
LATTICE Launching Academics on the Tenure-Track: an Intentional Community in Engineering
NWWIC Northwest Women in Computing
SIGCSE Special Interest Group in Computer Science Education
SWE Society of Women Engineers
TWIST Today's Women in Science & Technology

CCSC Northwestern Regional Conference, Bothell, Washington, October 2005

ASEE, Chicago, Illinois, June 2006

Diversity in the Sciences Symposium, Seattle, WA, October 2006
GHC, San Diego, California, October 2006
ACM SIGCSE, Covington, Kentucky, March 2007
ASEE, Honolulu, Hawaii, June 2007
A Statistics Bootcamp for CS Education Researchers, Atlanta, Georgia, September 2007
ACM ICER Workshop, Atlanta, Georgia, September 2007
ACM SIGCSE, Portland, Oregon, March 2008
ACM SIGCSE, Chattanooga, Tennessee, March 2009
ASEE, Austin, Texas, June 2009
ACM ICER Workshop, Berkeley, California, August 2009
ACM SIGCSE, Milwaukee, Wisconsin, March 2010
GHC, Portland, OR, November 2011
ACM SIGCSE, Raleigh, North Carolina, March 2012
Pacific Northwest ASEE Section Meeting, Portland, Oregon, March 2012
FYEE, Pittsburgh, PA, August 2012
Frontiers in Education, Seattle, WA, October 2012
NWWIC, Portland, Oregon, October 2012*
ACM SIGCSE, Denver, Colorado, March 2013
NWWIC, Portland, Oregon, October 2013*
CCSC Northwestern Regional Conference, Forest Grove, Oregon, October 2013
ACM SIGCSE, Atlanta, Georgia, March 2014
Research in Computational Biology Conference, Pittsburgh, Pennsylvania, April 2014
ASEE, Indianapolis, Indiana, June 2014
ACM SIGCSE, Kansas City, Missouri, March 2015
NWWIC, Hillsboro, Oregon, April 2015*
ASEE, Seattle, Washington, June 2015
Process Oriented Guided Inquiry Learning Workshop, Portland, Oregon, July 2015
ACM SIGCSE, Memphis, Tennessee, March 2016
TWIST LPGA, Portland, Oregon, June 2016*
CCSC Northwestern Regional Conference, Portland, Oregon, October 2016*
ACM SIGCSE, Seattle, Washington, March 2017
NWWIC, Hillsboro, Oregon, April 2017*
LATTICE, Bainbridge Island, Washington, May 2017
ASEE, Columbus, Ohio, June 2017
Pacific Northwest Quantitative Biology, Portland, Oregon, September 2017
CCSC Northwestern Regional Conference, Richland, Washington, October 2017
SWE National Conference, Austin, Texas, October 2017*
Hawaii STEM/STEAM Conference, Honolulu, Hawaii, June 2018
Pacific Northwest Quantitative Biology, Portland, Oregon, September 2018*
CCSC Northwestern Regional Conference, Bothell, Washington, October 2018
SWE National Conference, Minneapolis, Minnesota, October 2018*
Hawaii STEM/STEAM Conference, Honolulu, Hawaii, June 2019
CCSC Northwestern Regional Conference, Forest Grove, Oregon, October 2019
SWE National Conference, Anaheim, California, November 2019*
ACM SIGCSE, Portland, Oregon, March 2020 (converted to on-line, covid-19)
Microsoft Ability Summit, online, May 2020
ASEE Panel on Anti-Racism, online panel, June 2020
POGIL Best Practices in an Asynchronous Environment, online webinar, June 2020

IEEE Virtual Events about Remote Instruction, online, July 2020
Search Advocate Training, Oregon State University, online, July 2020
CCSC Northwestern Regional Conference, online, October 2020
The Making of a T1 University, online, October 2020
SWE National Conference, online, November 2020
ACM SIGCSE, online, March 2021
Howard Hughes Medical Institute Inclusive Excellence in Learning, online, April 2021
ASEE, online, July 2021
National Effective Teaching Institute – 2B Student Teams, online, August 2021
CCSC Northwestern Regional Conf, Lacey, Washington, (attended online), October 2021
SWE National Conference, Indianapolis, IN (attended online), Oct 2021
The Inclusive STEM Teaching Project, online EdX course, UP discussions, Oct – Nov 2021
ACM SIGCSE, Providence, Rhode Island, (attended online), March 2022
Microsoft Ability Summit, online, May 2022
National Center for Women & Information Technology Summit, online, May 2022
ABET workshop, How Should CS Get Feedback from Employers, online, May 2022
ACM ICER Workshop, Switzerland (attended online), August 2022
SWE National Conference, Houston, TX (attended online), October 2022
CSForAll Summit, Memphis, TN (attended online), October 2022
CCSC Northwestern Regional Conference, Portland, Oregon, November 2022
NSF Webinar: Diversity and STEM: New Data from NCSES (attended online), Jan 2023
Microsoft Ability Summit, online, March 2023
CS Department Chairs Roundtable Workshop, Toronto, Canada, March 2023
ACM SIGCSE, Toronto, Canada, March 2023
SWE Local Conference, Seattle, WA, March/April 2023*
Western Canadian on Computing Education, Vancouver (attended online), May 2023
National Effective Teaching Institute 1 Workshop, Portland, OR, May 2023
Hawaii STEM/STEAM Conference, Honolulu, Hawaii, June 2023
ACM ICER Workshop, Chicago, (attended online), August 2023
Waterman Lecture: Natalie S. King, Science Education, (attended online), Sept 2023
SWE National Conference, Los Angeles, (attended online), October 2023
HHMI Inclusive Teaching Course, biointeractive.org, completed modules Fall 2023

*chaperoned student attendees