Gina L. Sprint

Associate Professor
Gonzaga University

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Education

Computer Science, PhD   Aug 2012 - May 2016
Integrative Training in Health-Assistive Smart Environments Certificate
Washington State University (WSU), Pullman, WA
Dissertation: *Analysis of Changes in Sensor Data for Mobility Assessment*
Advisor: Dr. Diane Cook

Business Administration, MBA   January 2019 - March 2021
Gonzaga University (GU), Spokane, WA
Advisor: Dr. Mirjeta Beqiri

Computer Science, BS   Sept 2009 - March 2012
Mathematics Minor, Summa Cum Laude, Honors Ad Majorem
Eastern Washington University (EWU), Cheney, WA
Advisor: Dr. Stuart Steiner

Research Interests

Wearable Computing, Sensor Data Mining, Machine Learning, Technology Applications for Health Care, and Computer Science Education

Academic Experience

Associate Professor Gonzaga University, Spokane, WA   August 2022 - Present
Assistant Professor   August 2017 - July 2022
- Designing and teaching undergraduate programming courses.
- Implementing new curriculum and pedagogies adapted from professional development workshops and CS education research literature.
- Mentoring senior design teams, CS majors, and undergraduate researchers.

Clinical Assistant Professor WSU, Pullman, WA   May 2016 - May 2017
- Designed and taught undergraduate programming courses, both face to face and online.
- Mentored senior design teams, CS majors, and undergraduate researchers.

Research Intern St. Luke's Rehabilitation Institute, Spokane, WA   Oct 2013 - Present
- Collaboratively designing studies to track changes in physical movement using wearable sensors.
- Currently assisting in recruiting, consenting, and testing study participants.
- Programming wearable sensors and processing collected data.

Research Assistant WSU, Pullman, WA   Aug 2012 - May 2016
- Performed interdisciplinary research in the Center for Advanced Studies in Adaptive Systems (CASAS) lab.
- Investigated wearable sensor data mining and machine learning for healthcare applications.
- Performed research in system verification and validation for Intel In Target Probe software and debug boards.

Graduate Instructor WSU, Pullman, WA   Summer 2014, Summer 2015

- Taught an introductory undergraduate programming course, Program Design and Development in C.
- Designed lectures, labs, programming assignments, exams, and interactive programming practice sessions for the students.
- Performed CS education research in gamification, resulting in an IEEE ISEC best paper award.

Professional Experience

Advisor and Instructor Girls Who Code, Remote   June 2023 - December 2023
- Mentored ∼50 Leadership Academy Fellows working on CS-focused community Give Back Projects.
- Lead engaging virtual Summer Immersion Program lessons on game design with p5.js and p5play.

Software Engineer Intern Intel Corp., DuPont, WA   May 2013 - Aug 2013
- Researched and designed an extensible architecture to collect and visualize processor validation data in real-time.
- Authored an architecture specification document, product specification document, user guide, and tutorial for the project.
- Presented results at the Intel Design and Test Technology Conference, 2013. (poster)

Software Engineer Infinetix Corp., Spokane Valley, WA   March 2012 - Aug 2012
- Designed and implemented new features for utility radio boards that extended functionality and diagnostic support.
- Verified and validated new features and corresponding code implementations.

Software Engineer Intern Infinetix Corp., Spokane Valley, WA   June 2011 - Sept 2011
- Validated software for a clinical chemistry analyzer machine for FDA approval.
- Identified and fixed bugs in the embedded system.
- Updated associated software requirements specifications documents.

Publications

(undergraduate co-authors are in bold)

Journal Articles

- Christian Fink, **Nathan Omodt**, **Sydney Zinnecker**, and Gina Sprint. *A Congressional Twitter Network Dataset Quantifying Pairwise Probability of Influence*. Data in Brief, vol 50, 2023. (journal impact factor: 1.200)
- Christian Fink, Kelly Fullin, Guillermo Gutierrez, **Nathan Omodt**, **Sydney Zinnecker**, Gina Sprint, and Sean McCulloch. *A Centrality Measure for Quantifying Spread on Weighted, Directed Networks*. Physica A: Statistical Mechanics and its Applications, vol 626, 2023. (journal impact factor: 3.778)
- Gina Sprint, Diane Cook, Maureen Schmitter-Edgecombe, and Larry Holder. *Multimodal Fusion of Smart Home and Text-based Behavior Markers for Clinical Assessment Prediction*. ACM Transactions on Computing for Healthcare, vol 3, issue 4, Article No. 41 pp 1–25, 2022. (journal impact factor: 3.260)
- **Peter Fantozzi**, Gina Sprint, and Anna Marie Medina. *Pediatric Sarcoma Survivorship - A Call for a Developmental Cascades Approach*. Development and Psychopathology, 1-10, 2021. (journal impact factor: 4.151)
- **Madison Call**, **Erik Fox**, and Gina Sprint. *Gamifying Software Engineering Tools to Motivate Computer Science Students to Start and Finish Programming Assignments Earlier*. Institute of Electrical and Electronics Engineers (IEEE) Transactions on Education, vol 64, issue 4, pp. 423-431, 2021. (journal impact factor: 2.740)

- Gina Sprint, Diane Cook, and Shelly Fritz. *Behavioral Differences Between Subject Groups Identified Using Smart Homes and Change Point Detection*. IEEE Journal of Biomedical and Health Informatics, vol. 25, issue 2, pp. 559-567, 2021. (journal impact factor: 5.772)

- **Allison Fellger**, Gina Sprint, Douglas Weeks, Elena Crooks, and Diane Cook. *Wearable Device-Independent Next Day Activity and Next Night Sleep Prediction for Rehabilitation Populations*. IEEE Journal of Translational Engineering in Health and Medicine, vol. 8, pp. 1-9, 2020. (journal impact factor: 3.316)

- Douglas Weeks, Gina Sprint, Diane Cook, Virgeen Stilwill, and Amy Lou Meisen-Vehrs. *Implementing Wearable Sensors for Continuous Assessment of Daytime Heart Rate Response in Inpatient Rehabilitation*. Telemedicine and E-Health, vol. 24, no. 12, p. 1014-1020, 2018. (journal impact factor: 5.033)

- Diane Cook, Glen Duncan, Gina Sprint, and Shelly Fritz, *Using Smart City Technology to Make Healthcare Smarter*. Proceedings of the IEEE, vol. 106, no. 4, p. 708-722, 2018. (journal impact factor: 10.961)

- Gina Sprint, Diane Cook, Douglas Weeks, **Jordana Dahmen**, and **Alyssa La Fleur**, *Analyzing Sensor-based Time Series Data to Track Changes in Physical Activity During Inpatient Rehabilitation*. Sensors, vol. 17, no. 10, p. 2219, 2017. (journal impact factor: 3.847)

- Gina Sprint, Diane Cook, Shelly Fritz, and Maureen Schmitter-Edgecombe. *Using Smart Homes to Detect and Analyze Health Events*. IEEE Computer, vol. 49, no. 11, p. 29-37, 2016. (journal impact factor: 2.256)

- Gina Sprint and Diane Cook. *Unsupervised Detection and Analysis of Changes in Everyday Physical Activity Data*. Journal of Biomedical Informatics, vol. 63, p. 54-65, 2016. (journal impact factor: 6.317)

- Gina Sprint, Diane Cook, Douglas Weeks, and Vladimir Borisov. *Predicting Functional Independence Measures Scores During Rehabilitation with Wearable Inertial Sensors*. IEEE Access, vol. 3, p. 1350-1366, 2015 (video). (journal impact factor: 3.367)

- Gina Sprint, Diane Cook, and Douglas Weeks. *Towards Automating Clinical Assessments: A Survey of the Timed Up and Go*. IEEE Reviews in Biomedical Engineering, vol. 8, p. 64-77, 2015. (journal impact factor: 9.047)

Conference Proceedings
- Aaron Crandall, Gina Sprint, and Bryan Fischer. *Generative Pre-Trained Transformer (GPT) Models as a Code Review Feedback Tool in Computer Science Programs*. In Journal of Computing Sciences in Colleges (Consortium for Computing Sciences in Colleges-CCSC NW Conference Proceedings), vol 39, issue 1, pp. 38-47, 2023.

- **Nora Howard**, Gina Sprint, Douglas Weeks, and Elena Crooks. *A Remotely Accessible Ecological Momentary Assessment and Actigraphy System for ALS Research*. In 2023 IEEE International Conference on Digital Health (ICDH), p. 24-29, 2023.

- **Ben Puryear** and Gina Sprint. *Github Copilot in the Classroom: Learning to Code with AI Assistance*. In Journal of Computing Sciences in Colleges (Consortium for Computing Sciences in Colleges-CCSC NW Conference Proceedings), vol 38, issue 1, pp. 37–47, 2022.

- Gina Sprint. *Teaching Test-driven Development of Algorithms behind Data Science Library APIs*. In Journal of Computing Sciences in Colleges (Consortium for Computing Sciences in Colleges-CCSC NW Conference Proceedings), vol 37, issue 1, pp. 18-27, 2021.

- Gina Sprint and **Erik Fox**. *Improving Student Study Choices in CS1 with Gamification and Flipped Classrooms*. In 2020 Proceedings of the 51st ACM Technical Symposium on Computer Science Education (SIGCSE), p. 773-779, 2020.

- **Allison Fellger**, Gina Sprint, **Alexa Andrews**, Douglas Weeks, and Elena Crooks. *Nighttime Sleep Duration Prediction for Inpatient Rehabilitation Using Similar Actigraphy Sequences*. In 2019 IEEE Healthcare Innovations and Point-of-Care Technologies (HI-POCT), p. 41-44, 2019.

- Gina Sprint and **Jason Conci**. *Mining GitHub Classroom Commit Behavior in Elective and Introductory Computer Science Courses*. In Journal of Computing Sciences in Colleges (CCSC NW Conference Proceedings), p. 76-84, 2019.

- **Jason Conci**, Gina Sprint, Diane Cook, and Douglas Weeks. *Utilizing Consumer-grade Wearable Sensors for Unobtrusive Rehabilitation Outcome Prediction*. In 2019 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), p. 1-4, 2019.

- **Jordana Dahmen**, **Alyssa La Fleur**, Gina Sprint, Diane Cook, and Douglas Weeks. *Using Wrist-worn Sensors to Measure and Compare Physical Activity Changes for Patients Undergoing Rehabilitation*. In 2017 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops), p. 667-672, 2017. Honorable mention for best paper award.

- Vladimir Borisov, Gina Sprint, Diane Cook, and Douglas Weeks. *Measuring Changes in Gait and Vehicle Transfer Ability During Inpatient Rehabilitation with Wearable Inertial Sensors*. In 2017 IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops), p. 425-430, 2017.

- Gina Sprint, Diane Cook, and Douglas Weeks. *Patient Similarity and Joint Features for Rehabilitation Outcome Prediction*. In IJCAI Knowledge Discovery in Healthcare Data Workshop, p. 1-6, 2016.

- Gina Sprint, Diane Cook, Roschelle Fritz, and Maureen Schmitter-Edgecombe. *Detecting Health and Behavior Changes by Analyzing Smart Home Sensor Data*. In 2016 IEEE International Conference on Smart Computing (SMARTCOMP), p. 1-3, 2016.

- Gina Sprint, Diane Cook, and Douglas Weeks. *Designing Wearable Sensor-based Analytics for Quantitative Mobility Assessment*. In 2016 IEEE International Conference on Smart Computing (SMARTCOMP), p. 1-8, 2016.

- Gina Sprint, Diane Cook, and Douglas Weeks. *Quantitative Assessment of Lower Limb and Cane Movement with Wearable Inertial Sensors*. In 2016 IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), p. 418-421, 2016.

- Gina Sprint and Diane Cook. *Enhancing the CS1 Student Experience with Gamification*. In 2015 IEEE Integrated STEM Education Conference, p. 94-99, 2015. H. Robert Schroeder Best Paper Award (4.65% of accepted papers).

- Gina Sprint, Vladimir Borisov, Diane Cook, and Douglas Weeks. 2014. *Wearable Sensors in Ecological Rehabilitation Environments*. In Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication, p. 163-166, 2014.

Book Chapters
- Gina Sprint, Diane Cook, and Maureen Schmitter-Edgecombe, *Unsupervised Detection and Analysis of Changes in Everyday Physical Activity Data*. In: D. Holmes, L. Jain. (eds) Advances in Biomedical Informatics. Intelligent Systems Reference Library, vol. 137, 2018. Springer, Cham.

Peer Reviewed Abstracts
- Ellie Ottman, Kendell Erickson, Gina Sprint, Kimberly Honn, Douglas Weeks, and Elena Crooks. *Sleep Characteristics after Acute Stroke Vs. Traumatic Brain Injury*. American Physical Therapy Association CSM, 2020.

- Abbie Aamot, Elena Crooks, Gina Sprint, Kimberly Honn, and Douglas Weeks. *Use of Subjective Fatigue to Predict Cognition in Patients with Acute Stroke or Brain Injury*. American Physical Therapy Association CSM, 2020.

- Kristen Lane, Elena Crooks, Gina Sprint, and Douglas Weeks. *Daytime Sleepiness and Functional Outcomes after Neurological Insult*. American Physical Therapy Association CSM, 2020.

- Kendall Erickson, Ellie Ottman, Gina Sprint, Douglas Weeks, and Elena Crooks. *Actigraphy-Assessed Daytime Sleep, Nighttime Sleep and Functional Outcomes in Patients with Neurological Insult*. American Physical Therapy Association CSM, 2020.

- Gina Sprint. *Mobile App Development: Android or iOS? An Experience Report from Teaching Both Platforms*. ACM Special Interest Group on Computer Science Education (SIGCSE), 2019.

- Gina Sprint and Andy O'Fallon. *Engaging Programming Assignments to Recruit and Retain CS0 Students*. ACM Special Interest Group on Computer Science Education (SIGCSE), 2018.

- Douglas Weeks, Gina Sprint, Diane Cook, Alyssa La Fleur, and Jordana Dahmen. *Continuous Assessment of Daytime Heart Rate Response During Inpatient Rehabilitation*. ACRM Annual Conference on Progress in Rehabilitation Research (PIRR), 2017.

- Gina Sprint. *Using Smart Homes to Detect and Analyze Health Events*. Grace Hopper Celebration of Women in Computing, 2017.

- Gina Sprint and Shira Broschat. *CS0: Who is Enrolling?* International Computing Education Research (ICER) Conference, 2017.

- Gina Sprint. *Detecting and Analyzing Changes in Everyday Physical Activity Data*. WSU GPSA Research Exposition, 2016.

- **Jordana Dahmen**, Gina Sprint, Diane Cook, and Douglas Weeks. *Physical Therapist Feedback Regarding Wearable Technology*. Annual Biomedical Research Conference for Minority Students, 2016.

- Gina Sprint and Diane Cook. *Wearable Sensor Data and Medical Records for Clinical Outcome Prediction*. Grace Hopper Celebration of Women in Computing, 2015.

- Vladimir Borisov, Gina Sprint, Diane Cook, and Douglas Weeks. *Employing Wearable Sensors To Assess Ambulation in Rehabilitation Patients*. Inland Northwest Research Symposium: Research and Innovations in Health Sciences from Bench-top to Bedside, 2015.

- Gina Sprint, Vladimir Borisov, Diane Cook, and Douglas Weeks. *Wearable Sensors in Ecological Rehabilitation Environments*.

  - WSU Academic Showcase, 2015.
  - Dr. William R. Wiley Research Symposium, 2015.
  - Amazon Graduate Research Symposium, 2014.

Courses Taught
1. Machine Learning for the MBA Program (GU MBUS 699), Summer 2022, Fall 2022.
2. Introduction to Data Science w/Python (GU CPSC 222), Fall 2022, Spring 2022, Fall 2021, Fall 2020.
3. Data Science Algorithms w/Python (GU CPSC 322), Fall 2022, Spring 2022, Spring 2021.
4. Mobile Application Development w/Android and Java (GU CPSC 312), Fall 2021, Fall 2019, Fall 2017.
5. Mobile Application Development w/iOS and Swift (GU CPSC 315), Fall 2020, Fall 2018.
6. Computer Science II w/C++ (GU CPSC 122), Spring 2020.
7. Software Development w/Java (GU CPSC 224), Fall 2019.
8. Data Mining w/Python (GU CPSC 310), Spring 2019.
9. Computer Science I w/C++ (GU CPSC 121), Spring 2019, Fall 2018, Spring 2018.
10. Data Analytics Systems and Algorithms w/Python (designed WSU CptS 215), Spring 2018.
11. Introduction to Algorithmic Problem Solving w/Python (WSU CptS 111), Spring 2017, Fall 2016.
12. Program Design and Development w/C (WSU CptS 121), Summer 2015, Summer 2014.

Awarded Grants

- Gonzaga McDonald Work Award grant ($1,092), 2021. Mobile CS.

- Gonzaga Research Council Faculty Award grant ($2,175), 2021. Ecological Momentary Assessment and Wearable Data for Online Recovery Analytics.

- Gonzaga SEAS Jack L. McElroy grant ($2,400), 2020. Leveraging Ecological Momentary Assessment and Wearable Data for Online Recovery Analytics.

- Gonzaga SEAS SEED grant ($10,000), 2020. Developing an Online Machine Learning Intervention to Increase Physical Activity and Sleep Duration for Healthcare Applications.

- Gonzaga McDonald Work Award grant ($1,000), 2020. Mobile CS Microlearning.

- Gonzaga Career and Professional Development (CPD) office faculty grant ($500), 2019. Launching a Book Club for Junior and Senior Computer Science Students.

- Computing Research Association Women (CRA-W) Collaborative Research Experience for Undergraduates (CREU) grant ($11,500), 2018 - 2019. Using Machine Learning to Investigate the Relationship Between Physical Activity and Sleep Data for Healthcare Applications. Co-investigator: Dr. Doug Weeks.

- National Institute of Health R25 grant ($911,651), 2017 - 2020. Development of an Online Course Suite in Tools for Analysis of Sensor-Based Behavioral Health Data (AHA!). Principal investigator: Dr. Diane J. Cook. Co-investigators: Dr. Maureen Schmitter-Edgecombe, Dr. Anantharaman Kalyanaraman, Dr. Shelly Fritz.

- Travel grants (SWE ALWE 2017; ACM SIGCSE 2017; IEEE Rising Stars 2017; NSF/IEEE Smart-Comp, 2016; WSU EECS, 2016; WSU GPSA, 2016; IEEE ISEC, 2015; CRA-W, 2015; ACM UbiComp, 2014).

- National Center for Women and IT (NCWIT) Student Seed Fund, 2015. Funds for our Broadening Participation in Computing (BPC) club to run a summer coding camp for middle school girls. Co-investigators: Jessamyn Dahmen and Dr. Shira Broschat.

- WSU Graduate and Professional Student Association student club award, 2014. Funds for our BPC club. Co-investigator: Jessamyn Dahmen.

Honors and Awards

- National Center for Women in Information Technology (NCWIT) EngageCSEdu Engagement Excellence award winner for two of my CS1 assignment ("Are you a Fan?" Quiz and Lightboard Lab).

- IEEE PerCom WristSense workshop honorable mention for best paper award, 2017.

- WSU Best Computer Science Graduate Student, 2016.

- WSU GPSA Research Exposition 1st place poster presentation winner, 2016. (poster)

- IEEE Integrated STEM Education Conference H. Robert Schroeder best paper award, 2015. (slides)

- WSU Dr. William R. Wiley Research Exposition 2nd place poster presentation winner, 2015. (poster)

- WSU National Science Foundation Integrative Graduate Education and Research Traineeship (IGERT) Fellow, 2012 - 2015.

- EWU Outstanding Computer Science Graduate, 2012.

- EWU Ad Majorem Honors College Graduate, 2012.

Scholarships

- Grace Hopper Celebration of Women in Computing Scholarship, 2015.
- EWU Academic Honors, President's, and Trustee's Scholarship, 2009 - 2011.
- Washington Water Power Legacy Scholarship Foundation 4th Place Winner, 2010.
- Washington Water Power Legacy Scholarship Foundation 1st Place Winner, 2009.

Conference and Symposium Presentations

Oral

- CCSC NW Conference, 2021, Lacey, WA.
- CCSC NW Conference, 2019, Forest Grove, OR.
- Grace Hopper Celebration of Women in Computing IoT/Emerging Tech Session, 2017, Orlando, FL. (slides)
- International Joint Conference on Artificial Intelligence (IJCAI) Knowledge Discovery in Healthcare Data Workshop, 2016, New York City, NY. (slides)
- IEEE SmartComp, 2016, St. Louis, MO. (slides)
- IEEE Biomedical and Health Informatics (BHI), 2016, Las Vegas, NV. (slides)
- Grace Hopper Celebration of Women in Computing IoT/Emerging Tech Session, 2015, Houston, TX. (slides)
- IEEE Integrated Stem Education Conference (ISEC), 2015, Princeton, NJ. (slides)

Poster

- IEEE HI-POCT Conference, 2019, Bethesda, MD. (poster)
- ACM SIGCSE, 2019, Minneapolis, MN. (poster)
- ACM SIGCSE, 2018, Baltimore, MD. (poster)
- IEEE SmartComp, 2016, St. Louis, MO. (poster)
- WSU GPSA Research Exposition, 2016, Pullman, WA. (poster)
- Computing Research Association - Women (CRA-W) Grad Cohort Workshop, 2015, San Francisco, CA.
- WSU Academic Showcase, 2015, Pullman, WA.
- Technology Alliance Insight to Impact: Transforming Washington's Industries through Big Data, 2015, Seattle, WA.
- WSU Dr. William R. Wiley Research Exposition, 2015, Pullman, WA.
- Amazon Graduate Research Symposium, 2014, Seattle, WA. (poster)
- ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp), 2014, Seattle, WA. (poster)
- UbiComp BPC Workshop, 2014, Seattle, WA.
- EWU Creative Works Symposium, 2011, Cheney, WA.

Demo

- Intel Design and Test Technology Conference, 2013, Portland, OR. (poster)

Workshops and Seminars

- ABET Fundamentals of Program Assessment workshop, 2022, Virtual.
- Consortium for Computing Sciences in Colleges (CCSC) Northwestern Regional Conference, 2021, Lacey, WA; 2020, Virtual; 2019, Forest Grove, OR; 2018, Bothell, WA.
- Society of Women Engineers (SWE) Academic Leadership workshop (ALWE) and WE, 2017, Austin, TX.
- University of Washington LATTICE symposium, 2017, Seattle, WA.
- NCWIT Summit, 2016, Red Rock Canyon, NV.
- Process Oriented Guided Inquiry-based Learning (POGIL) workshop, 2016, Pullman, WA.
- Grace Hopper Celebration of Women in Computing, 2017, Orlando, FL; 2015, Houston, TX; 2014, Phoenix, AZ.
- UbiComp SmartHealthSys and BPC Workshop, 2014, Seattle, WA.
- Edward Tufte on Presenting Data and Information Seminar, 2013, Seattle, WA.
- WSU Graduate Teaching Workshop, 2013, 2015, Pullman, WA.
- WSU Grant Writing Workshop, 2012, Pullman, WA.

Professional Memberships

- Institute of Electrical and Electronics Engineers (IEEE), IEEE Engineering in Medicine and Biology Society (EMBS), and IEEE Education Society, 2014 - Present.
- Association for Computing Machinery (ACM), ACM-Women (ACM-W), and ACM Special Interest Group for Computer Science Education (SIGCSE), 2011 - Present.
- Society of Women Engineers (SWE), 2017 - Present.

Activities and Organizations

- Computer science outreach

  - SEAS Summer Immersion Program (SSIP) computer science curriculum designer and coach, 2022.
  - Spokane DjangoGirls coach, 2018.
  - WSU CptS 111 (Introduction to Programming with Python) recruiting website content manager, 2016 - 2017.
  - WSU EECS High School Partnership Program (HSPP) girls' host and mentor, 2016 - 2017.
  - WSU NCWIT Academic Alliance member representative, 2016.
  - NCWIT Aspirations in Computing Eastern Washington committee member, 2015 - 2017.
  - WSU Dr. Universe programming question answerer, 2017.
  - Learn to Code! Programming for Girls (WSU CougarQuest workshop for middle school students), instructor, 2015.
  - WSU Broadening Participation in Computing (BPC) club co-founder, 2014.

- North Idaho College Computer Science external program review committee member, 2022.
- Consortium for Computing Sciences in Colleges (CCSC) Northwestern Regional Conference committee member, 2020 - Present; audit committee member, 2021 - Present.
- IEEE PerCom PerHealth Workshop technical program committee member, 2018, 2019, 2020 (co-chair), 2021 (co-chair).
- EAI BodyNets Conference technical program committee member, 2016.

- Peer Reviewer (IEEE PerHealth, 2018, 2019; Pervasive and Mobile Computing (PMC), 2018; IEEE TBME, 2017; GHC, 2017; ACM ITiCSE, 2017; ACM SIGCSE, 2017; EAI BodyNets, 2016; MDPI Sensors, 2016; IEEE Computer, 2016; ACM CHI, 2016; PMC, 2015; ACM Ubicomp, 2014).
- WSU Graduate and Professional Student Association (GPSA) senator, 2013 - 2014.
- WSU Tabletop Gaming Association Student (TTGA) club advisor, 2013 - 2017.

Mentoring

- Faculty advisor for GU Women in Computing Club, 2019 - Present.
- Faculty founder and leader of GU CS Book Club, 2019 - 2020.
- Faculty mentor for senior design teams, 2016 - Present.
- WSU faculty sponsor for the ACM International Collegiate Programming Competition (ICPC), 2016.
- Mentor for undergraduate research students (REU, CREU, GSUR), 2015 - Present.
    - Ben Puryear, CS Major, Gonzaga University, 2021 - Present.
    - Trevor Bushnell, CS/Applied Math Major, Gonzaga University, 2021.
    - Zach Burnaby, CS Major, Gonzaga University, 2021.
    - Nora El Naby, CS Major, Gonzaga University, 2020 - 2021.
    - Tristan Call, CS Major, Gonzaga University, 2019 - 2021.
    - Kelsey Lally, CS/Communication Studies Major, Gonzaga University, 2019 - 2020.
    - Alli Fellger, CS Major, Gonzaga University, 2018 - 2020.
    - Alexa Andrews, CS Major, Gonzaga University, 2018 - 2019.
    - Erik Fox, CS Major, Gonzaga University, 2018 - 2019.
    - Jason Conci, CS Major, Gonzaga University, 2017 - 2019.
    - Alyssa La Fleur, Math/CS Major, Whitworth University, 2016 - 2017.
    - Jordana Dahmen, Biology/Kinesiology Major, WSU, 2015 - 2017.
- Mentor for undergraduate women in Women in Computing/ACM-W, 2015 - Present.