DAVID GRAY WIDDER HE/HIM/HIS

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Education

School of Computer Science, Carnegie Mellon University, Pittsburgh, Pennsylvania,
- PhD student advised by Laura Dabbish & James Herbsleb, 2017- Present
- Masters of Science in Software Engineering, 2017-2021

Robert D. Clark Honors College, University of Oregon, Eugene, Oregon, 2013-2017
- Bachelor of Science in Computer Science, GPA: 3.95, Major GPA: 4.15, *Magna Cum Laude*

Related Work Experience

Research Intern, Socio-Technical Systems, Intel Labs. Remote. July 2021 – May 2022
- Interviewed 27 AI engineers about their perceived ethical agency and responsibility
- Led workshops to translate findings into AI Ethics process improvements
- Invited to present findings to 150+ employees, findings informed
- Findings informed AI Ethics recommendations presented to C-suite decision makers

Research Intern, Microsoft Research. Redmond, Washington. February – May 2020
- Interviewed adopters of AI Ethics guidance to find technical and organizational barriers to use
- Presented findings to C-suite decision maker to inform internal Ethical AI policy roll out

Research Intern, Jet Propulsion Laboratory, NASA. Pasadena, California. June – August 2019
- Conducted interviews, participant observation, and user studies to study software engineer's trust in an automated software engineering tool
- Presented usability improvements to software team to improve software framework

Peer-Reviewed Publications

David Widder, Dawn Nafus, Laura Dabbish, James Herbsleb. "Limits and Possibilities for 'Ethical AI' in Open Source: A Study of Deepfakes". To appear in: *Conference on Fairness, Accountability, and Transparency* (FAccT), 2022. Link.

Hana Frluckaj, Laura Dabbish, **David Widder**, Sophie Huilian Qiu, James Herbsleb. "Open Source Software Participation Trajectories for Male and Female Participants" To appear in: *Conference on Computer-supported Cooperative Work and Social Computing* (CSCW), 2022. Preprint available soon.

David Widder, Laura Dabbish, James Herbsleb, Alexandra Holloway, Scott Davidoff. "Trust in Collaborative Automation in High Stakes Software Engineering Work: A Case Study at NASA". In: *Proceedings of the Conference on Human-Computer Interaction* (CHI), 2021. 26% acceptance rate. Link.

David Widder, Michael Hilton, Christian Kästner, and Bogdan Vasilescu. "A Conceptual Replication of Continuous Integration Pain Points in the Context of Travis CI". In: *Proceedings of the Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering* (FSE), 2019. 24% acceptance rate. Link.

David Widder, Joshua Sunshine, Stephen Fickas. "Barriers to Reproducible Scientific Programming". In: *Proceedings of the Symposium on Visual Languages & Human-Centric Computing, Short Research Papers Track* (VL/HCC), 2019. 44% acceptance rate. Link.

Zack Coker, **David Widder**, Claire Le Goues, Christopher Bogart, and Joshua Sunshine. "A Qualitative Study on Framework Debugging". In: *Conference on Software Maintenance and Evolution* (ICSME), 2019. 23% acceptance rate. Link.

Courtney Miller, **David Widder**, Christian Kästner, and Bogdan Vasliescu. "Why do People Give Up FLOSSing? A Study of Contributor Disengagement in Open Source". In: *Proceedings of the Conference on Open Source Systems* (OSS), 2019. Link.

David Widder, Christian Kästner, Michael Hilton, Bogdan Vasilescu. "I'm Leaving You, Travis: A Continuous Integration Breakup Story". In: *Conference on Mining Software Repositories, Short Research Papers Track* (MSR), 2018. 27% acceptance rate. Link.

Invited Lectures, Public Scholarship, and Advocacy

- Invited lecture: "AI Trust in a High Stakes Workplace: An Ethnography at NASA", hosted by Senior Lecturer Rikke Jensen at the Information Security Group at Royal Holloway University of London, 1 June 2022.
- Wrote opinion article for software engineering practitioner blog: "'Ethical AI' isn't just how you build it, it's how you use it", David Gray Widder writing in the Stack Overflow blog, 30 May 2022.
- Email interview and research paper quoted in practitioner blog: "The robots are coming for (the boring parts of) your job", Eira May writing in the Stack Overflow blog, 21 April 2022.
- Invited lecture: "Situating 'AI for Social Good' and 'AI Ethics' at Carnegie Mellon & in our Future Careers", for Professors Emma Strubell and Alan Black's Computational Ethics for NLP course, Language Technologies Institute at Carnegie Mellon University, 5 April 2022.
- Podcast interview: "Computers Aren't Demigods: On the existence of Bias-Free systems", Ellie Young and Matt Lepinski on Byte Size, 4 May 2021.
- City Council testimony, newspaper interview: "Pittsburgh City Council told facial recognition bill should be stronger", Tom Davidson reporting for TribLive, 2 September 2020.

Non-Refereed Publications

David Widder. "Gender in Open Source Communities: Different Migration Patterns and Forms of Work". *VL/HCC Graduate Consortium,* 2019. Link.

David Widder. "Tensions Between Scientific Programming and the Scientific Method". *Undergraduate Honors Thesis.* Pass with Honors, 2017. Link.

David Widder. "What Are Barriers to Efficient ROS Debugging?" *REUSE Poster Session.* 2016.

Teaching Activities

- Advocated for the inclusion of, and developed, ethics content in *Intro Course for Software Engineering PhD Students,* Spring 2022, with Jonathan Aldrich and Christian Kästner. Developed and delivered two lectures, assigned reading, graded reading responses, lead live discussion.
- Teaching Assistant for *Ethics and Policy Issues in Computing*, Spring 2021. Course Instructors: Laura Dabbish and James Herbsleb, Carnegie Mellon University. Held office hours, lead breakout discussions, graded and gave feedback on exams and assignments.
- Teaching Assistant for *Human Factors*, Fall 2019. Course Instructor: Laura Dabbish, Carnegie Mellon University. Guest lectured, held office hours, graded and gave feedback on exams and assignments.

Student Mentorship

Lyric Sampson, 2022 – Present, currently a participant in CMU's REUSE program
Derrik Zhen, 2022 – Present, currently a participant in CMU's REUSE program
Hana Frluckaj, 2019 – 2020, now a PhD Student at University of Texas at Austin
Courtney Miller, 2018 – 2019, now a PhD Student at Carnegie Mellon University
Jamie Rosas-Smith, 2018, now a Software Engineer at JP Morgan Chase

Institutional Service

Research Experience for Undergraduates in Software Engineering Admissions Committee, 2018-Present
Reviewed 35 applications for the REUSE program, yearly.
Dean's PhD Advisory Committee, Co-Director, 2017 - 2020, Member, 2020 - 2021
Advocating for SCS PhD student interests to Dean: ie, healthcare, anti-racism.
Departmental Climate Task Force, Student Co-Chair, 2018 - 2019
Committee tasked with improving departmental climate, inclusiveness, and diversity.
Research Experience for Undergraduates in Software Engineering Mentor, 2018, 2020
Mentored summer undergraduate research interns as part of the REUSE summer program

Professional Service

Conference on Human-Computer Interaction (CHI), 2021 Reviewer
International Conference on Automated Software Engineering (ASE), 2018 Sub Reviewer
Transactions on Software Engineering (TSE), 2018 Sub Reviewer
Conference on Computer Human Interaction (CHI), 2020 Reviewer

Memberships

Association for Computing Machinery, & Special Interest Group on Software Engineering
Upsilon Pi Epsilon, Honor Society for Computing and Information Disciplines
Phi Beta Kappa, Liberal Arts Honors Society

Add to CV:

Employment:
- ~~Intel~~

Research:
- **FAccT Paper** (needs acceptance rate!)
- **CSCW 2nd Author Paper (NEEDS ACCEPTANCE RATE, LINK TO PAPER)**

Non refereed publications:
- HRI Gender Robots

Service:
- REU advising for new Students

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Public Scholarship
- ~~Podcast w Ellie~~
- ~~Quote in Facial Recognition Piece~~
- ~~Guest Lecture in Computational Ethics~~
- ~~Guest Lecture Royal Holloway University of London~~

Teaching Activities
- ~~Course TA for Human Factors~~
- ~~Course TA for EPIC~~
- ~~Course development for Intro to SE Principles~~
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Service:
- REU advising for new Students
- ~~REU admittance committee~~