

# Summary of Achievements

## Publications

- In total, I have published 24 peer-reviewed papers: 9 ICSE, 6 FSE, 1 TSE, 1 EMSE, 4 ICSME, and 3 SANER/WCRE papers
- While at William & Mary (W&M), I have published 13 peer-reviewed papers: 7 ICSE, 4 FSE, 1 TSE, and 1 SANER papers
- Five of my current/former W&M students are co-authors of 7 of the 13 papers: 3 ICSE and 4 FSE papers; my students are the first author in 6 of these 7 papers
- Paper breakdown by type (24 papers):
  - 14 full conference papers: 5 ICSE, 5 FSE, 1 ICSME, and 3 SANER/WCRE papers; 9 of these 14 papers were published while at W&M: 5 ICSE, 3 FSE, and 1 SANER papers
  - 2 journal papers: 1 TSE (while at W&M) and 1 EMSE papers
  - 5 short conference papers: 2 ICSE and 3 ICSME papers
  - 3 tool demonstration papers: 2 ICSE and 1 FSE papers (all while at W&M)
- Five conference papers are currently under review: 3 at ICSE'25, 1 at ISSTA'24, and 1 at ICSME'24.
- I have won two ACM SIGSOFT distinguished paper awards (ICSE'20 and FSE'19) and one IEEE TCSE distinguished paper award (ICSME'17)
- I have published 3 tool competition summary papers at the NLBSE workshop and 1 Arxiv preprint (all while at W&M)
- Google Scholar metrics (May 9th, 2024): 933 citations (826 since 2019), with an H-index of 16 (14 since 2019), and an I10 index of 19 (18 since 2019)

## Research Funding

- I have been awarded three NSF grants as PI or co-PI to fund my research ( $\approx$ \$1.07 million – own share):
  - An NSF CAREER Award (2023): \$550,091, sole PI
  - An NSF DASS grant (2022): \$262,280 (own share) with two W&M colleagues (one CS and one Law Professors)
  - An NSF SHF Medium grant (2020): \$261,881 (own share) with a W&M colleague and collaborators from George Mason University and the University of Central Florida
- An NSF SHF Small grant proposal is currently under review: \$300,000 (own share) with a collaborator from the New Jersey Institute of Technology

## Awards

- An NSF CAREER Award in 2023 to fund my research program on Informed Decision Making for Software Change
- Two ACM SIGSOFT distinguished paper awards (ICSE'20 and FSE'19) and one IEEE TCSE distinguished paper award (ICSME'17)
- Seven Distinguished Paper Reviewer Awards (ICSE'24, FSE'19, ICSME'23/21, and ICPC'22/23)
- A Distinguished Service Award at NLBSE'23
- A David Daniel Thesis Award from The University of Texas at Dallas
- Other awards: 4 NSF Conference Travel grants, a Thomas C. Rumble graduate fellowship (WSU), M.Eng. Thesis Laureate Distinction and honor enrollment (UNAL)

## Student Mentoring

- I currently mentor five Ph.D. students:
  - Yang Song will soon graduate (Ph.D. defense scheduled on May 13th, 2024)

- The remaining four students are 2nd/3rd-year students
- Two students are being co-advised with a CS colleague
- Two former M.Sc. students, co-advised with a CS colleague, graduated in 2023 and continued with their Ph.D. at W&M (same advisors)
- I currently mentor one M.Sc. student (research project-track)
- I mentored a former undergraduate student in 2022-2023, who published an FSE'23 paper

## **Research Collaborations**

While at W&M I have collaborated with 10 PIs (topics in parentheses):

- Martin Kellogg from NJIT (Verification-guided Code Refactoring and Comprehension)
- Laura Heymann from W&M's Law School, Massimiliano Di Penta from U. of Sannio - Italy, Daniel German from U. of Victoria - Canada (Software Licensing and Supply Chain Management)
- Kevin Moran from UCF and Mattia Fazzini from UMN (Bug Report Management)
- Christoph Treude from Singapore Management University (Bug Localization)
- Shiyi Wei from UT Dallas (Software Documentation)
- Denys Poshyvanyk from W&M (Bug Report Management, Software Licensing and Supply Chain Management, and Quantum Software Engineering)
- Andrian Marcus from GMU (Bug Report Management and Software Documentation)

## **Other Achievements**

### **Research outcomes**

- Five open source research tools (see my website for links): JANUS (ICSE'24), BURT (ICSE'23, FSE'22), V2S (TSE'23, ICSE'21/20), TANGO (ICSE'21), and BEE (FSE'20).
- Numerous open source benchmarks and datasets (see my website for links): ICSE'24/23/21/20/16, FSE'24/23/22/20/19, TSE'23, EMSE'29, ICSME'17/16/14, and SANER'21/19

### **Talks/Posters**

- Invited talks: VCU (2023), U. Nacional de Colombia (2021), U. de Los Andes (2021), and ISEC'20
- Conference talks: ICSE'23/17/16, SANER'21, FSE'17, ICSME 16/14, and WCRE'12
- Conference posters: FSE'17 and ICSME 16/14

### **Teaching and Thesis Committees**

- My graduate course (CSCI 680/645) became permanent in the CS graduate program at W&M
- I am or have been a member of the Ph.D/M.Sc. committee of 11 students

### **Service**

- NSF grant proposal reviewer (two SHF panels)
- Co-editor of a special issue in the Elsevier SCP journal
- Organizing committee member of various conference tracks (FSE, ICSME, SCORE@ICSE) and local symposiums (ESSEC)
- International SE workshop organizer (NLBSE, DySDoc, DocGen)
- Paper reviewer at journals (TSE, TOSEM, EMSE, JSS, JSEP, AUSE, SQJ)
- Program committee member at conferences (ICSE, FSE, ASE, ICSME, MSR, ICPC, SANER) and workshops (NLBSE, IWOR, DySDoc, DocGen)
- Session chair at ICSE and ICSME
- Student volunteer at ICSE and FSE
- Served in multiple committees at W&M. Notably, I was the chair of the 2023 CS graduate recruiting symposium and I am currently the colloquium committee chair.