

Zixuan (Steve) Feng

Computer Science, Ph.D. Student, Minor: Statistics

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Summary

My name is Zixuan Feng (Steve). I am a Ph.D. candidate in Software Engineering at Oregon State University, working with Dr. Anita Sarma, with a minor in Statistics. My research focuses on human factors in software engineering, drawing from user experience (UX), human-computer interaction (HCI), empirical software engineering, social computing, and computer-supported cooperative work. I collect data from open source software (OSS) and analyze it using mixed research methods (e.g., statistical analysis, grounded theory, large language models (LLMs)) to develop or validate theories about software engineering processes and outcomes, aiming to answer questions such as: How can we empower distributed teams to develop software effectively and productively? How can technology help software teams do more with less?

Education

Oregon State University (Oregon, United States)

2021 Fall - Present

Ph.D. Student – Computer Science/Statistics

GPA:3.86

2018 Fall - 2021 Winter

Master - Computer Science/Statistics

GPA:3.86

2013 Fall - 2018 Summer

Bachelor of Science Computer Science

GPA:3.52

Publications

Published paper:

The Multifaceted Nature of Mentoring in OSS: Strategies, Qualities, and Ideal Outcomes (CHASE 2025 Research Paper)

Zixuan Feng, Igor Steinmacher, Marco Gerosa, Tyler Menezes, Alexander Serebrenik, Reed Milewicz, Anita Sarma

Investigating the Impact of Interpersonal Challenges on Feeling Welcome in OSS (ICSE 2025 Research Paper)

Bianca Trinkenreich, **Zixuan Feng**, Rudrajit Choudhuri, Marco Gerosa, Anita Sarma, Igor Steinmacher

Guiding the way: A systematic literature review on mentoring practices in open source software projects (Information and Software Technology)

Zixuan Feng, Katie Kimura, Bianca Trinkenreich, Anita Sarma, Igor Steinmacher

The State of Diversity and Inclusion in Apache: A Pulse Check (CHASE Full Research 2023)

Zixuan Feng, Mariam Guizani, Marco Gerosa, Anita Sarma

Promoting and Studying Diversity, Equity, and Inclusion in the ASF Community (Apache Software Foundation Reports and Statements, 2023)

Zixuan Feng, Anita Sarma, Luis Canas-Diaz, Katia Rojas

A Case Study of Implicit Mentoring, its Prevalence, and Impact in Apache (2022 FSE/ESEC Research)

Zixuan Feng, Amreeta Chatterjee, Anita Sarma, Iftekhar Ahmed

The State of Survival in OSS: the Impact of Diversity (FSE/ESEC 2023 SRC)

Zixuan Feng

OSS Unsung Heroes: Crafting Productive Communities Invisibly (VL/HCC 2023 Graduate Consortium)

Zixuan Feng

How to Support ML End-User Programmers through a Conversational Agent (ICSE 2023 Research Paper)

Emily Arteaga Garcia, Joao Felipe Pimentel, **Zixuan Feng**, Marco Gerosa, Igor Steinmacher, Anita Sarma

Make It Make Sense! Understanding and Facilitating Sensemaking in Computational Notebooks ([Arxiv pre-print](#))

Zixuan Feng (co-first author), Souti Chattopadhyay (co-first author), Audrey Au, Emily Arteaga, Gonzalo Ramos, Anita Sarma, Titus Barik

Unveiling Diversity: Empowering OSS Project Leaders with Community Diversity and Turnover Dashboards ([Arxiv pre-print](#))

Zixuan Feng (co-first author), Mariam Guizani (co-first author), Emily Judith Arteaga, Luis Cañas-Díaz, Alexander Serebrenik, Anita Sarma

Implicit Mentoring: The Unacknowledged Developer Efforts in Open Source ([Arxiv pre-print](#))

Zixuan Feng, Amreeta Chatterjee, Anita Sarma, Iftekhar Ahmed

Rumble Strip Design Analysis to Contribute to Low Exterior Noise Using Finite Element Modeling (Oregon Department of Transportation - Tech Report [accepted](#))

Zixuan Feng is first author of the paper in Appendix A and the second author of the paper in Appendix B

Papers under review:

Mars Meets Jupyter: Navigating the Interdisciplinary Divide Between Software Engineers and Domain Experts (2025 FSE Research Paper)

Zixuan Feng, Lorenzo Pisani, Christopher Gooley, Jeremiah Wander, Anita Sarma, Thomas Zimmermann

Community Tapestry: An Actionable Tool to Track Turnover and Diversity in OSS (2025 CSCW Research Paper)

Zixuan Feng (co-first author), Mariam Guizani (co-first author), Emily Judith Arteaga, Luis Cañas-Díaz, Alexander Serebrenik, Anita Sarma

Facilitating Sensemaking in Computational Notebooks (2025 CHASE Research Paper)

Zixuan Feng (co-first author), Souti Chattopadhyay (co-first author), Gonzalo Ramos, Anita Sarma, Titus Barik

Talks

Industrial Talk:

Navigating the Growing Diversity Challenges in OSS (The Linux Foundation Open Source Summit North America 2024)

Beyond Code: Recognizing the Crucial Role of Glue Work in Open Source (The Linux Foundation Open Source Summit North America 2024)

OSS Empowering Engagement: Introducing a Dynamic Dashboard for Proactive Retention Strategies (Linux Plumber Conference 2023)

From Conversations to Action: Creating a healthy, diverse open source community (FOSSY 2023)

Research Talk:

OSS Sustainability Forum: Roads from Theory to Practice (Invited-only Conference)

The State of Survival in OSS: The Impact of Diversity (FSE SRC 2023)

OSS Unsung Heroes: Crafting Productive Communities invisibly (VL/HCC GC 2023)

A Case Study of Implicit Mentoring, its Prevalence, and Impact in Apache (ESEC/FSE 2022)

Invited Workshop:

ASE 2024: OSS Sustainability Forum: Roads from Theory to Practice (ASE 2024)

Experience and Service

Microsoft Research Intern (2024 Summer)

Proceedings Chair (IEEE Symposium on Visual Languages and Human-Centric Computing, VL/HCC 2024)

Paper reviewer:

- IST (Journal) 2024 - Information and Software Technology
- CHI 2025- The ACM (Association of Computing Machinery) CHI Conference on Human Factors in Computing Systems
- CSCW 2025- ACM SIGCHI Conference on Computer-Supported Cooperative Work & Social Computing
- CHI 2024 - The ACM (Association of Computing Machinery) CHI Conference on Human Factors in Computing Systems
- ICSE 2024 - International Conference on Software Engineering (sub-reviewer)
- TOSEM (Journal) 2024 - ACM Transactions on Software Engineering and Methodology (sub-reviewer)
- FSE 2023 - The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (sub-reviewer)

Graduate research assistant (2021 to Summer – Present) Advisor: Dr.Anita Sarma

Research consultant (2023): Parallel to my research, I am working as a student researcher to design interventions to improve the state of Diversity and Inclusion for Apache Software Foundation.

Graduate teaching assistant (2019 Winter - 2021 Summer)

- CS 453/553 Scientific Visualization, Oregon State University, EECS
- CS 444/544 Operating System II, Oregon State University, EECS
- CS 458 Information Visualization, Oregon State University, EECS
- ST 201 Principles of Statistics, Oregon State University, Statistics

Graduate research assistant (2018 Winter - 2020 Spring)

As a graduate student researcher, I worked on developing optimal rumble strips/stripes to maintain traffic safety while minimizing disruption to the surrounding environment by utilizing Finite Element modeling, statistical analysis, and machine learning modeling.

Tech Report I: Rumble Strips Design Analysis to Contribute to Low Exterior Noise and the Durability of Inland Stripes: Task 2 Literature Review Report
Zixuan Feng, Jinta Zheng, Yue Zhang

Tech Report II: Literature Survey on Finite Element Method of Structural Acoustic Tire-Pavement Noise Modeling
Zixuan Feng, Yue Zhang

Mentorship (2021 to present):

2023 to present: Katie Kimura (undergraduate research assistant) --- attending ICSE undergraduate student research competition

2023 to present: Prashant Tandan (graduate research assistant)

2021 Summer: Emma Di (high school internship) --- received an offer from Stanford University in 2024

Skills

Programming languages

Python, R, C, C++, ABAQUS, BASH, MySQL, JAVASCRIPT, PHP, HTML/CSS

Data Analysis

Natural Language Processing, Statistical Testing (Parametric & Non-parametric), Statistical Modelling (Linear, Logarithmic, Nested), Databases, Evolutionary Computation, Machine Learning

UX research

Field & User Studies, Interviews, Survey, Qualitative Coding, Mixed Methods, Experimental Design, Inclusive Design, Heuristic Evaluation, Cognitive Walkthrough, Usability Testing

Coursework

Computer Science:

CS 560 Data-Driven Software Engr, Oregon State University, EECS
CS 565 Human-Computer Interaction, Oregon State University, EECS
CS 570 High Performance Architecture, Oregon State University, EECS
CS 559 Numerical Modelling, Oregon State University, EECS
CS 561 Software Engineering Methods, Oregon State University, EECS
CS 575 Intro to Parallel Programming, Oregon State University, EECS
CS 557 Computer Graphics Shaders, Oregon State University, EECS

Statistics:

ST 561 & 562 & 563 Theory of Statistics, Oregon State University, Statistics
ST 551 & 552 & 553 Statistical Methods, Oregon State University, Statistics
ST 537 Data Visualization, Oregon State University, Statistics
ST 592 Statistical Genomics, Oregon State University, Statistics
ST 521 & 522 Intro to Mathematical Stats, Oregon State University, Statistics
ST 511 & 512 & 513 Methods of Data Analysis, Oregon State University, Statistics