

Rohan Bavishi

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Education

2019-Present	University of California, Berkeley, Ph.D. in Computer Science <i>Area: Programming Systems</i>
2017-2019	University of California, Berkeley, Master's in Computer Science <i>GPA: 4.0/4.0</i>
2013-2017	Indian Institute of Technology, Kanpur, B.Tech. in Computer Science and Engineering <i>GPA: 9.8/10</i>

Research Interests

Areas	Programming Languages, Software Engineering, Systems
Topics	Program Synthesis, Code Recommendation, Dynamic Program Analysis

Internship Experience

Summer '21	Microsoft Research , PROSE Team, Redmond, WA, USA
Summer '18	Fujitsu Research of America , Software Systems Innovation Group, Sunnyvale, CA, USA
Summer '16	EPFL , Processor Architecture Laboratory, Switzerland

Publications

Peer-reviewed Conference Papers

ASE 2021	VizSmith: Automated Visualization Synthesis by Mining Data-Science Notebooks Rohan Bavishi , Shadaj Laddad, Hiroaki Yoshida, Mukul R. Prasad, and Koushik Sen <i>36th IEEE/ACM International Conference on Automated Software Engineering (ASE) 2021</i>
OOPSLA 2021	Gauss: Program Synthesis by Reasoning over Graphs Rohan Bavishi , Caroline Lemieux, Koushik Sen, and Ion Stoica <i>ACM Int'l Conference on Object Oriented Programming Systems Languages and Applications (OOPSLA) 2021</i>
OOPSLA 2019	AutoPandas: Neural-Backed Generators for Program Synthesis Rohan Bavishi , Caroline Lemieux, Roy Fox, Koushik Sen, and Ion Stoica <i>ACM Int'l Conference on Object Oriented Programming Systems Languages and Applications (OOPSLA) 2019</i>
ICSE 2020 (Tool Paper)	Phoenix: A Tool for Automated Data-Driven Synthesis of Repairs for Static Analysis Violations Hiroaki Yoshida, Rohan Bavishi , Keisuke Hotta, Yusuke Nemoto, Mukul R. Prasad, and Shinji Kikuchi <i>ACM/IEEE 42nd International Conference on Software Engineering (ICSE) 2020</i>
FSE 2019	Phoenix: Data-Driven Synthesis of Repairs for Static Analysis Violations Rohan Bavishi , Hiroaki Yoshida, and Mukul R. Prasad <i>ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE) 2019</i>
OOPSLA 2016	To Be Precise : Regression Aware Debugging Rohan Bavishi , Awanish Pandey, and Subhajit Roy <i>ACM Int'l Conference on Object Oriented Programming Systems Languages and Applications (OOPSLA) 2016</i>

Workshop Papers

NeurIPS 2021	Neural Inference of API Functions from Input-Output Examples Rohan Bavishi , Caroline Lemieux, Neel Kant, Roy Fox, Koushik Sen, and Ion Stoica <i>Workshop on ML for Systems at NeurIPS 2018</i>
Mobile! 2016	Regression Aware Debugging for Mobile Applications Rohan Bavishi , Awanish Pandey, and Subhajit Roy <i>International Workshop on Mobile Development (Mobile!) 2016</i>

Other

- arXiv 2018 **Context2Name: A Deep Learning-Based Approach to Infer Natural Variable Names from Usage Contexts**
Rohan Bavishi, Michael Pradel, and Koushik Sen

Patents

- 2020 **Data-Driven Synthesis of Fix Patterns**
Rohan Bavishi, Hiroaki Yoshida, and Mukul R. Prasad

Dissertations

- Master's Thesis 2019 **Neural-Backed Generators for Program Synthesis**
Rohan Bavishi (Advisor: Koushik Sen)

Teaching Experience

- 2017, 2022 **University of California, Berkeley**
CS 70 – Discrete Mathematics and Probability Theory, Graduate Student Instructor (Spring 2022)
CS 164 – Compilers (Undergraduate), Head Graduate Student Instructor (Fall 2017)
- 2016-2017 **Indian Institute of Technology, Kanpur**
ESC 101 – Fundamentals of Computing (Undergraduate), Head Teaching Assistant (Spring 2017)
ESC 101 – Fundamentals of Computing (Undergraduate), Head Teaching Assistant (Fall 2016)

Service

- 2021 **Subreviewer**, PLDI 2022, ICSE 2022
2020 **Subreviewer**, POPL 2021, ISSTA 2020
2019 **Subreviewer**, ICST 2020,
2020 **Artifact Evaluation Committee**, PLDI 2020
2020 **Artifact Evaluation Committee**, OOPSLA 2020
2018 **Subreviewer**, ASE 2018, CAV 2018
2017 **Subreviewer**, ASPLOS 2018, PLDI 2018