Ayaan M. Kazerouni

https://ayaankazerouni.github.io
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RESEARCH INTERESTS

I am broadly interested in **computing education**, **software testing**, and **software engineering**. I use quantitative and qualitative methods to determine the effectiveness of students' software development practices and artefacts. My goal is to develop pedagogy and tooling that uses this information to better teach students *procedural knowledge* of how software is made.

EMPLOYMENT

Assistant Professor, Computer Science and Software Engineering September 2020–present
California Polytechnic State University, San Luis Obispo, CA

Summer Adjunct Faculty, Computer Science May 2020–August 2020
Virginia Tech, Blacksburg, VA

Graduate Research Assistant August 2015–April 2020
Virginia Tech, Blacksburg, VA

- **Software process expertise:** Methods to teach and assess effective software development practices
- **Software testing:** Practice and feedback on software testing using mutation analysis

Front-End Software Development Intern June 2017–August 2017
Zappos.com, Las Vegas, NV

- Infrastructure redesign of the Zappos and 6pm desktop and mobile sites

EDUCATION

Ph.D. Computer Science 2015–2020
Virginia Tech

- Advisors: Dr. Clifford Shaffer and Dr. Stephen Edwards
- Dissertation: Measuring the Software Development Process to Enable Formative Assessments

B.S. Computer Science 2011–2015
University of West Georgia

- Research mentor: Dr. Lewis Baumstark

TEACHING

Instructor, CSC/CPE 203 Project-based Object-oriented Programming and Design Fall 2020
California Polytechnic State University

Instructor, CS 3114 Data Structures & Algorithms Summer 2018, 2019, 2020
Virginia Tech

Graduate Teaching Assistant, CS 3114 Data Structures & Algorithms Fall 2015–Spring 2016
Virginia Tech

CONFERENCE PAPERS

C. A. Shaffer, **A. M. Kazerouni**. "The Impact of Programming Project Milestones on Procrastination, Project Outcomes, and Course Outcomes: A Quasi-Experimental Study in a Third-Year Data Structures Course (to appear)". *ACM Technical Symposium on Computer Science Education* (**SIGCSE**), March 2021.

R. S. Mansur, **A. M. Kazerouni**, S. H. Edwards, C. A. Shaffer. "Exploring the Bug Investigation Techniques of Intermediate Student Programmers (to appear)". *Koli Calling Conference on Computing Education Research* (**Koli Calling**), November 2020.

T. Price, D. Hovemeyer, K. Rivers, A. C. Bart, G. Gao, **A. M. Kazerouni**, B. Becker, A. Petersen, L. Gusukuma, S. H. Edwards, D. Babcock. "ProgSnap2: A Flexible Format for Programming Process Data". *ACM Conference on Innovation and Technology in Computer Science Education* (**ITiCSE**), July 2020.

J. C. Davis, D. Moyer, **A. M. Kazerouni**, D. Lee. "Testing Regex Generalizability And Its Implications: A Large-Scale Many-Language Measurement Study". *IEEE/ACM International Conference on Automated Software Engineering* (**ASE**), November 2019.

S. H. Edwards, Krishnan P. Murali, **A. M. Kazerouni**. "The Relationship Between Practicing Short Programming Exercises and Exam Performance". *ACM Global Computing Education Conference* (**CompEd**), May 2019.

A. M. Kazerouni, C. A. Shaffer, S. H. Edwards. "Assessing Incremental Testing Practices and Their Impact on Project Outcomes". *ACM Technical Symposium on Computer Science Education* (**SIGCSE**), February 2019. **2nd Best Research Paper**.

A. M. Kazerouni, C. A. Shaffer, S. H. Edwards. "Quantifying Incremental Development Practices and Their Relationship to Procrastination". *ACM Conference on International Computing Education Research* (**ICER**), August 2017.

A. M. Kazerouni, C. A. Shaffer, T. S. Hall, S. H. Edwards. "DevEventTracker: Tracking Development Events to Assess Incremental Development and Procrastination". *ACM Conference on Innovation and Technology in Computer Science Education* (**ITiCSE**), July 2017.

ABSTRACTS AND POSTERS

A. M. Kazerouni. "Toward Continuous Assessment of the Programming Process". *ACM Conference on International Computing Education Research - Doctoral Consortium* (**ICER**), August 2019.

A. M. Kazerouni, R. S. Mansur, S. H. Edwards, C. A. Shaffer. "Student Debugging Practices and Their Relationships with Project Outcomes". *ACM Technical Symposium on Computer Science Education — Poster* (**SIGCSE**), February 2019.

A. M. Kazerouni. "Toward Continuous Assessment of the Programming Process (Abstract Only)". *ACM Technical Symposium on Computer Science Education - Student Research Competition* (**SIGCSE**), **1st Place**.

HONORS AND AWARDS

Graduate Student Service Award 2020
Department of Computer Science, Virginia Tech

2nd Best Paper Award, Research Track 2019
ACM SIGCSE Technical Symposium

1st Place in the SIGCSE Student Research Competition 2018
ACM SIGCSE Technical Symposium

2nd Place in the College of Math and Science Research Day 2015
University of West Georgia

Outstanding Honors Junior 2014
University of West Georgia

Outstanding Honors Sophomore 2013
University of West Georgia

ADVISING

Graduate

August Doebling *MS, California Polytechnic State University* 2020–present
Will Fuchs *MS, California Polytechnic State University* 2020–present
Kevin Yoo *MS, California Polytechnic State University* 2020–present

Undergraduate

Mugen Blue *BS, California Polytechnic State University* 2020–present
Harrison DeWitt *BS, California Polytechnic State University* 2020–present

SERVICE

Demonstrations Track Program Committee *ICSE* 2021
Program Committee *SIGCSE Technical Symposium* 2019, 2020, 2021
Artifact Evaluation Program Committee *ESEC/FSE* 2020
President, CS Graduate Student Council *Virginia Tech* 2019-2020
Vice President, CS Graduate Student Council *Virginia Tech* 2018-2019
Working Group Member *CSSPLICE Programming Snapshot Data Working Group* 2018–present
Treasurer/Cofounder, CS Graduate Student Council *Virginia Tech* 2017-2018