Rushi Shah

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Education

May 2020 University of Texas - Austin, Turing Scholar Honors Program
B.S. Computer Science & B.S. Mathematics; GPA: 3.83

Work Experience

Summer UT Program Analysis Research Group, Research Assistant, Austin

- 2019 Presented paper called "Synthesizing Database Programs for Schema Refactoring" (third author) at top-tier Programming Languages Design & Implementation (PLDI) conference
 - Implemented prototype tool in Java programming language for paper called "Data Migration using Datalog Program Synthesis" (second author) in top-tier Very Large DataBases (VLDB) conference

Spring CS 389L Automated Logical Reasoning (graduate level class), Teaching Assistant

2019 • Served as Teaching Assistant for 60 Master's and Ph.D. students; graded weekly proof-based homeworks; held well-attended weekly office hours; helped grade midterm and final exam

Summer Amazon, Software Engineering Intern, Tokyo, Japan

- Elegantly reduced the task of tracking real-time, location-based purchase trends in Amazon order data to leverage an edge-detection algorithm (a traditional machine vision technique)
 - Implemented a service based on above approach using the Java programming language, the Python programming language, the OpenCV library, and Amazon Web Services tools like S3 and EC2

Summer Originate, Software Engineering Intern, New York City

- 2017 Worked at this software consulting firm in Manhattan on a data center workload analysis contract
 - Generalized and patched distributed computing scripts by coding in the Scala programming language with the Spark framework over Cassandra databases

Summer MITRE Corporation, Research Assistant, Washington DC

- 2014, 2015 Worked for the Federal Aviation Administration (FAA) at this federally-funded R&D center to improve the Closed Runway Operations Prevention Device (CROPD) which prevents plane crashes
 - Adapted computational linguistics algorithms to call-sign identification task in over 25,000 transmissions; edited strict language model based on air traffic controller's emerging speech patterns

Publications

- Sept. 2020 **Data Migration using Datalog Program Synthesis**, Yuepeng Wang, <u>Rushi Shah</u>, Abby Criswell, Rong Pan, Isil Dillig, *Proceedings on Very Large DataBases (VLDB '20)*
- March 2020 **Texas Felon Disenfranchisement Enables Institutional Racism**, Rushi Shah, The Daily Texan
- June 2019 **Synthesizing Database Programs for Schema Refactoring**, Yuepeng Wang, James Dong, Rushi Shah, Isil Dillig, *Programming Languages Design & Implementation (PLDI '19)*

Leadership

2017-2020 TX Votes (non-partisan civic engagement), STEM Committee Chairperson

ullet Threw voter registration drive in Computer Science building, organized four *Tech & Politics Speaker Series* events, and personally registered over 250 voters

Speaking Engagements

- Dec. 2018 Moderator, Tech & Politics Speaker Series, Prof. Hovav Shacham on Election Security
- Nov. 2018 Speaker, Math Directed Reading Symposium, "Gerrymandering Considered Harmful"
- Apr. 2018 Speaker, Turing Lightning Talks, "Voting! For fun & profit."
- Feb. '18,'19 Moderator, Great Conversations Gala, Annette Strauss Institute For Civic Life