

# Grant Skaggs

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## Education

May 2020 **University of Texas - Austin, Turing Scholar Honors Program**  
B.S. Computer Science & B.S. Mathematics; **GPA: 3.97**

## Work Experience

- Summer 2019 **UT Program Analysis Research Group, Research Assistant, Austin**
- 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 2019 **CS 389L Automated Logical Reasoning (graduate level class), Teaching Assistant**
- 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 2018 **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 2017 **Originate, Software Engineering Intern, New York City**
- 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 2014, 2015 **MITRE Corporation, Research Assistant, Washington DC**
- 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, [Rushi Shah](#), 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**
- 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