

Shashank Iswara

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EDUCATION

The University of Texas at Austin, Austin, TX

Graduation: Spring 2024

Bachelor of Science, Computer Science | Bachelor of Science, Mathematics

- GPA 4.00/4.00
- Certificate in Quantum Information Science, Statistical Modeling
- Relevant Coursework: *Quantum Computing 1 & 2, Ethical Hacking, Operating Systems, Computer Architecture, Data Structures, Mathematical Statistics, Linear Algebra, Discrete Math*
- Current Coursework: Quantum Mechanics, Graphics, Virtualization

SKILLS

- **Programming Languages:** Java, Python, C/C++, JavaScript, HTML, CSS, x86-64 Assembly, SQL
- **Quantum Information:** Qiskit, Q#, Compilers, Error Correction, Security
- **Machine Learning:** PyTorch, TensorFlow, NumPy, Pandas, OpenCV
- **Software Engineering:** Node.JS, Docker, AWS, Git, Linux, PySpark
- **Other:** Independent Learning, Effective Communication, Teamwork

EXPERIENCE

State Farm

May 2022 – August 2022

Software Engineering Intern

- Designed and implemented an end-to-end data pipeline to automate the data pass through to the P&C team, increasing efficiency by eliminating the need for two hours of daily manual data processing
- Technologies: AWS (Lambda, S3, Glue, CloudWatch, IAM), Terraform, Python, JavaScript

FRI Program

January 2022 – Present

Student Researcher in Quantum Computing

- Wrote python scripts to simulate and enable study of quantum secure security protocols (BB84, E91)
- Implemented error correcting schemes using the stabilizer formalism on Qiskit
- Created a compiler to translate virtual quantum circuits to arbitrary physical hardware and apply optimizations to increase circuit efficacy

PROJECTS

- **The Drunken Qubit:** a quantum game written using Qiskit that uses different quantum walks to create unique superpositions for the player to guess
- **Linux Shell:** created an advanced Linux shell written from scratch in C
- **Y-86 CPU emulator:** an emulation of the Y-86 computer architecture written in C

LEADERSHIP & COMMUNITY INVOLVEMENT

Quantum Computing Peer Mentor

December 2022 – Present

- Selected to be an educator in a quantum information course
- Duties include conducting office hours, supervising student research projects, creating instructional tools, and grading assignments

Teaching Assistant

January 2023 – Present

Computer Architecture

- Taught C, Linux, and computer architecture to 200+ students