

SAIRAJA KURELLI

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EDUCATION

University of Texas at Austin

Austin, TX

Bachelor of Science in **Computer Science**, Minor in **Business** - 3.8 GPA

May 2024

Master of Science in **Computer Science**

Graduating May 2025

- **Relevant Coursework:** Data Structures, Algorithms, Machine Learning, Computer Architecture, Operating Systems, Graphics, Symbolic Programming, Programming for Correctness & Performance, iOS Development, Ethical Hacking
- **Graduate Courses:** Securing Real World Systems, Communication Complexity, Program Synthesis, Programming Languages, Human-Computer Interactions, Ethics of AI, Cybersecurity Technology Law and Policy

TECHNICAL SKILLS

Languages: Proficient with Python, Java, Scala, SQL, C/C++, SwiftUI, and React-Native with TypeScript

Developer Tools: Docker, AWS, Kafka, UNIX, Git, Octave, LaTeX, VS Code, IntelliJ, GitHub & GitLab

EXPERIENCE

Software Engineer Intern

May 2022 – Aug. 2022, May 2023 – Aug. 2023, May 2024 – Aug. 2024

Visa

- Designed a system with real-time analytics for Hadoop Resources, built to optimize performance of a distributed queue of more than **4k Virtual Cores** using **Apache Spark**, **Hive**, and **PowerBI**
- Built a **Spark Scala** pipeline for **Hadoop File System** to extract and compress **YARN** results from **Spark** Jobs by more than **10x**
- Designed systems with **JUnit** Unit Testing and integration into **Splunk** to monitor logs in an **Agile** environment
- Optimized **16** core **SQL** scripts with **JDBC** connections to **Spark-Thrift** servers for faster in-house data processing

Software Engineer Intern

Jun. 2021 – Aug. 2021

Tata Consultancy Services

- Executed data conversion for customers' AP, AR, and GL Transactions using FBDI CSV files
- Used Oracle **REST APIs** to update AP and AR invoices and Developed OTBI and BIP Reports using **SQL** queries

Student Researcher

Jun. 2019 – Aug. 2019

Rice University

- Researched Efficient Bucket and Permutation Sizes for Minhashing with Professor Anshumali Shrivastava
- Optimized implementation of Murmurhash in **Python** for Minhashing Algorithm for a **3-4%** improvement

PROJECTS

First Place at HackMerced-VII with team project **Lablr** for Instagram

- Designed a **Chrome** Extension with **Vue.JS** and data in **AWS** to help users assign tags on Image Distortions and develop a healthier body mindset.

Software Lead for team **RegoSafe** at TSGC's Design Challenge

- Trained Detectron2 on lunar machinery state using **Detectron2** with **PyTorch**, scoring a 72 AP Score on test set

Backend Lead for project **Farm Fresh News** at HackTX

- Developed application that aggregates farming news with **Google Natural Language API** sentiment analysis

LEADERSHIP

President (2023-2024), Vice President of Finances (2020-2023)

Aug. 2020 – May 2024

Association for Computing Machinery

University of Texas

- Designed and hosted community events to build an ACM community of more than 300 UT Students
- Improved Academic Lesson Plans for CS 101s and pioneered new events like **AWS** and **Kafka** workshops
- Coordinated and directed budget resources over **\$19,000** annually from 2020-2024

Lead Teaching Assistant

Jan. 2022 – present

Elements of Computers and Programming

University of Texas

- Designed quizzes and **Docker** autograders for over **600** students and graded section's **Python** assignments
- Conducted office hours to help students work through questions over Data Structures and OOP concepts