SAIRAJA KURELLI

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EDUCATION

University of Texas at Austin   Austin, TX
*Master of Science in **Computer Science***   *Graduating May 2025*
*Bachelor of Science in **Computer Science**, Minor in **Business** - 3.8 GPA*

- **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 Java, Scala, SQL, Python, C/C++, and React-Native with TypeScript
Developer Tools: Docker, Kafka, AWS, 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 to provide real-time analytics on usage of Hadoop Resources, built to optimize performance of a distributed queue with more than **4k Virtual Cores** using **Apache Spark**, **Hive**, and **PowerBI**
- Built a **Spark** pipeline on **HDFS** to extract and compress **YARN** results from **Spark** Jobs by more than **10x**
- Configured direct **JDBC** connections to **Spark-Thrift** data servers in **Scala** for faster in-house data processing
- Optimized **16** core **SQL** scripts that aggregated Visa's distributed datalake to reporting tools like Tableau

Software Engineer Intern   Jun. 2021 – Aug. 2021
Tata Consultancy Services

- Executed data conversion for customers' AP, AR, and GL Transactions using FBDI CSV files
- Role provisioned for on-boarding users and Inactivated Oracle User Accounts for off-boarding
- 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** 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
- Augmented Academic Lesson Plans for CS 101 and pioneered new events like a **Kafka** workshop
- Coordinated and directed budget resources over **$19,000** annually from 2020-2024

Teaching Assistant   Jan. 2022 – present
Elements of Computers and Programming   *University of Texas*

- Designed quizzes for over 600 students and evaluated **Python** assignments for 60 student cohorts
- Conducted office hours to help students work through questions over Data Structures and OOP concepts