Shreya Sundar

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Education

University of California, Santa Cruz | B.S. Computer Science **Sep. 2021 - Jul. 2024**
- Coursework: Data Structures and Algorithms, Computer Systems and C Programming, Python Programming, Applied Machine Learning, Computer Systems Design, Database Systems, Software Engineering, Advanced Programming (C++)

Skills

Programming Languages: Python, JavaScript, C, C++, Java, SQL, HTML, CSS, TypeScript
Technologies & Frameworks: React.js, Next.js, Node.js, Express.js, Pandas, NumPy, Scikit-Learn, REST APIs, GraphQL
Tools & Databases: PostgreSQL, MySQL, MongoDB, FireStore, Git, Docker, Linux, Valgrind, Google Workspace, Microsoft Office, Figma, Jupyter, Amazon Web Services, Asana, Jira, Notion

Work Experience

Software Engineer Intern **Jun. 2024 - Aug. 2024**
Realtor.com **Austin, TX**
- Spearheaded a **solution** to offload call recordings of agent/consumer conversations from **Twilio to AWS S3**, aimed at reducing storage costs by **thousands of dollars** annually
- Implemented **Python scripts** to correctly source and analyze recordings, automate the **transfer** of **100,000+ call recording** files from Twilio to an **AWS S3 Bucket**, and **deletion** of **100,000+ call recordings** from Twilio, utilizing **multithreading** to efficiently handle large amounts of audio files
- Implemented robust **IAM** policies, roles, and user **configurations** in the AWS management console and **Terraform** to ensure secure and efficient access control and consistency across **all production environments**
- Conducted **extensive testing** of the offloading of recordings to **S3** in a development environment to validate the functionality, performance, and reliability of the new storage solution

Software Developer **Nov. 2022 - May. 2024**
UC Santa Cruz Genomics Institute **Santa Cruz, CA**
- Developed and implemented **10+ frontend features** for a genomic data visualization web application using JavaScript and React.js, optimizing data access and search, resulting in a more **navigable**, **user-friendly** platform
- Composed **functions** and adapted **scripts** to generate **accurate** graph visualizations and preserve **data integrity** by **troubleshooting** browser-related issues, processing data input, handling coordinates, and computing statistics
- Reconfigured **server** to expand user **file I/O** options, achieving **visualization** options for node and track structures
- Constructed **10+ unit test scripts**, ensuring component functionality and computed data reliability

Computer Science Tutor **Sep. 2023 - Apr. 2024**
UC Santa Cruz Baskin School of Engineering **Santa Cruz, CA**
- Supported **50+ undergraduate students** as a tutor for Data Structures and Algorithms and Machine Learning Basics
- Held **biweekly sessions** to address students' code, address questions, explain concepts, and provide assignment overviews

Projects

Schmidt-Samoa Cryptosystem **Project | C, GMP**
- Employed Schmidt-Samoa algorithm to develop **executables** to maintain **file privacy/security**, which generate asymmetric **key pairs**, **encrypt** user-specified files, and **decrypt** encrypted files

Lempel-Ziv Data Compression **Project | C**
- Established **command line tools** for **data encoding and decoding**, using the Lempel-Ziv compression algorithm, implementing trie, word, and word table **data structures**, and **reading and writing bytes** to and from files

Jeopardy Trivia Game Maker **Project | React.js, Node.js, Express.js, MongoDB, Firebase**
- Developed a **comprehensive full-stack** application for users to **create and manage** trivia cards that can be **dynamically integrated** into a responsive Jeopardy board

Leadership and Organizations

President | Creative Tech Design
- **Led and coordinated** program tasks amongst a team of **20 officers**, fostering teamwork and collaboration
- Orchestrated **10+** events, fundraisers, panels, and workshops, providing valuable learning for **200+ undergraduates**

Developer and Designer | Tech4Good Research Laboratory
- Designed and developed **15+ responsive** and **interactive** frontend components for **5 web applications**, using HTML, SCSS, and Typescript, streamlining user interactions and enhancing usability
- Implemented **data storage** and **retrieval** functionality with **Firestore**, enabling personalized user experiences for **100+ users**