

Ankit Sachdeva

ankitsachdeva@gatech.edu ♦ ankitsachdeva.com ♦ Cupertino, CA ♦ github.com/ankitsachdeva ♦ in/ankitsachdeva

Education

Georgia Institute of Technology

June 2024 - Current

Masters of Science (M.S.) in Computer Science

Current Coursework: Human Computer Interaction, Knowledge Based Artificial Intelligence

University of California, Santa Cruz

September 2020 - June 2024

Bachelor of Science (B.S.) in Computer Science and Engineering

Relevant Coursework: Operating Systems, Data Structures and Algorithms, Computer Architecture, Computer Networking, Computer Systems Design, Distributed Systems, Assembly Language, Embedded Systems, Artificial Intelligence

Involvements: Cycling Club, Residential Assistant, Santa Cruz Mountains Trail Stewardship, Badminton Club, Tech4Good Lab

Experience

PayPal

San Jose, CA

Software Engineer Intern

June 2022 - September 2022

- Investigated the potential of moving the settlement team's file exchange processes to a blockchain based stack
- Designed and implemented a proof-of-concept leveraging solidity to collect metrics on throughput, reliability and robustness

Baskin School of Engineering at UCSC

Santa Cruz, CA

Group Tutor, Reader

March 2022 - Current

- Group tutor for Computer Systems and C Programming, a course focusing on computer systems and algorithm design
- Duties include aiding students with debugging code, grading exams, and maintaining course infrastructure such as GitLab CI/CD

Tech4Good Lab at UCSC

Santa Cruz, CA

Undergraduate Research Assistant

January 2022 - March 2022

- Modified the Salesforce AI Economist tax model to analyze scaling of apprenticeship learning under Professor David Lee
- Added actions and other variables to new and existing agents in order to model different styles of apprenticeship programs

Fox Factory

Scotts Valley, CA

Embedded Software Engineer Intern

September 2021 - January 2022

- Performed QA related tasks such as creating test plans, conducting regression testing, and overseeing environmental testing
- Developed firmware for the Live Valve project's embedded systems in C utilizing the Nordic nRF52 SDK and SoC
- Designed Python tools to be used in EOL testers to perform QA related tasks, verify hardware and firmware functionality

Projects

Pintos Operating System

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- Modified the Pintos educational operating system to support priority-based thread scheduling and priority donation between threads
- Added support for a more efficient version of the "timer sleep" system call that improves performance by removing busy-waiting

Huffman Compression Algorithm

ankitsachdeva.com/huffman

- Implemented the lossless Huffman Compression algorithm in C with low level system calls for I/O reads and writes
- Created and utilized fundamental data structures including nodes, queues and stacks and performed bit-wise operations

tacticians.tools

ankitsachdeva.com/ttools

- Utilized the Riot Games API to analyze the match history of hundreds of TFT games to identify the top performing skins
- Developed and hosted a SQL database on AWS, enabling storage and retrieval of match history data from games
- Designed and optimized RESTful API endpoints in Python to fetch and process game data in real-time

Unmasked Android Application

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- Designed and wrote an Android application to scan cosmetic items and highlight potentially harmful or allergic ingredients
- Utilized Firebase and Google OCR API with image enhancement, written with a mix of Kotlin and Java in Android Studio

Skills

Programming Languages

- Go, Python, Bash, Java, C/C++, MIPS Assembly, RISC-V Assembly, SQL, HTML/CSS, JavaScript, Kotlin, Swift

Technologies

- Git, SVN, Flask, Node.js, Express, React, MongoDB, NumPy, Pandas, Matplotlib, LaTeX, Docker/Podman, AWS