

# Ankit Sachdeva

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## Education

### University of California, Santa Cruz

September 2020 - December 2023

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

GPA: 3.8/4.0

**Involvements:** Cycling Club, Badminton Club, Santa Cruz Mountains Trail Stewardship, Tech4Good

**Relevant Coursework:** Marketing, Economics, Programming Abstractions, Data Structures and Algorithms, Computer Architecture, Computer Networking, Computer Systems Design, Functional Programming, Assembly Language, Embedded Systems, Artificial Intelligence

## Projects

### Unmasked Android Application

[ankitsachdeva.com/unmasked](https://ankitsachdeva.com/unmasked)

*TinoHacks II - 3rd place*

- 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

### Pintos Operating System

[ankitsachdeva.com/pintos](https://ankitsachdeva.com/pintos)

- 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](https://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

## 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 with solidity to collect metrics including throughput, reliability and robustness

### Baskin School of Engineering at UCSC

Santa Cruz, CA

*Group Tutor*

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

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

### Diversified Medical Records Services

Salt Lake City, CA

*Software Engineer Intern*

April 2021 - September 2021

- Implemented a user-intuitive report building system and dashboard to improve user experience and save time for the customer
- Refactored legacy bash SQL scripts to Python to significantly simplify codebase and save compute cost and technical debt

### Iris Logic

Santa Clara, CA

*Mobile App Development Intern*

July 2019 - October 2019

- Designed and developed an Android application to mirror and complement the Boltron Machine Monitoring System's capabilities

## Skills

- Digital marketing, SEO SEM, social media and email marketing, data analysis, content creation and copywriting, branding and brand positioning