# Ankit Sachdeva

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## Education

**University of California, Santa Cruz** **Expected — June 2023**
Bachelor of Science Computer Science
**Relevant Coursework:** Programming Abstractions in Python, Assembly Language & Computer Systems, Embedded Systems & C Programming, Data Structures and Algorithms, Computer Architecture, Computer Networks
**Involvements:** Santa Cruz Artificial Intelligence, Cycling Club, Santa Cruz Mountains Trail Stewardship, Badminton Club

## Experience

**Fox Factory** **Fall 2021 (current)**
*Software Engineering Intern - Mechatronics Team* *Scotts Valley, CA*
- Writing firmware for the Live Valve project's embedded systems in C utilizing the Nordic nRF52 SDK
- Performing QA related tasks such as creating test plans, regression testing, and overseeing environmental testing

**Diversified Medical Records Services** **Summer 2021**
*Software Engineering Intern* *Salt Lake City, UT*
- Rewrote legacy bash SQL scripts to Python to save compute cost and simplify codebase
- Created a user-intuitive report building system to improve user experience on front end and save time for the IT team

**Backcountry.com** **Summer 2020**
*Gearhead - Sales Associate and Customer Service* *Salt Lake City, UT*
- Created close to $500,000 in sales for the Competitive Cyclist team while helping solve customer problems
- Extensive usage of Oracle NetSuite ERP and WMS to create, track, and modify orders

**Iris Logic** **Summer 2019**
*Mobile App Development Intern* *Santa Clara, CA*
- Designed and developed an Android application to complement the *Boltron Machine Monitoring System*
- Adjusted application to meet Google Play Store requirements and fixed compatibility with larger tablets

## Skills

**Programming Languages**
- Python, Java, C/C++, MIPS Assembly, RISC-V Assembly, Javascript, Typescript, SQL, HTML/CSS, Kotlin, Swift

**Technologies**
- Git, Flask, Node.js, Express, React, MongoDB, NumPy, Pandas, Matplotlib, LaTeX

## Projects

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

**UCSC Portal Enrollment Script** **git.io/JnG2n**
- Implemented Selenium to schedule automatic enrollment in their preferred classes before classes reach capacity
- Used by 15 students for a successful winter quarter enrollment, now revised to work around Duo 2FA and updates

**Remote Suspension Controls** **git.io/JITE1**
- Used multiple arduinos acting as masters and slaves to create a wireless lockout system for mountain bike suspension
- Built encryption between master and slave nodes to prevent any malicious interference

**Unmasked Android Application** **git.io/JITut**
*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, written with a mix of Kotlin and Java in Android Studio