Ankit Sachdeva

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Education

University of California, Santa Cruz **Expected — June 2023**
Bachelor of Science (B.S.) in Computer Science
Relevant Coursework: Programming Abstractions, Assembly Language, Embedded Systems, Data Structures and Algorithms, Foundations of Video Game Design, Computer Architecture, Computer Networking
Current Coursework Computer Systems Design, Foundations of Programming Languages, Human-Centered Design Research
Involvements: Santa Cruz Artificial Intelligence, Cycling Club, Badminton Club, Santa Cruz Mountains Trail Stewardship

Experience

Tech4Good Lab **January 2022 - Current**
Undergraduate Research Assistant Santa Cruz, CA
- Working under Professor David Lee on a machine learning platform

Fox Factory **September 2021 - Current**
Embedded Software Engineering Intern Scotts Valley, CA
- Developing firmware for the Live Valve project's embedded systems in C utilizing the Nordic nRF52 SDK and SoC
- Designing Python tools to be used in EOL testers to perform QA related tasks, verify hardware and firmware functionality
- Performing QA related tasks such as creating test plans, conducting regression testing, and overseeing environmental testing

Diversified Medical Records Services **April 2021 - September 2021**
Software Engineering Intern Salt Lake City, UT
- Refactored legacy bash SQL scripts to Python to significantly simplify codebase and save compute cost
- Implemented a user-intuitive report building system to improve user experience on front end and save time for the customer

Backcountry.com **July 2020 - October 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 **July 2019 - October 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

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/JlTE1**
- 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/JlTut**
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

Skills

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

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