Anjena Raja

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EDUCATION

University of California, Irvine — Expected Graduation: June 2029
Bachelor of Science in Computer Science and Engineering with Honors — **GPA: 4.0/4.0**

Burbank High School — August 2021 - May 2025
High School Diploma — **GPA: 4.47/4.0, Rank: 7 of 611**
(Honors Computer Science AB, AP Physics C, Differential Equations, and Multivariable Calculus)

SANS Technology Institute — June 2023 – June 2024
Security Essentials: Network, Endpoint, Cloud; Security Foundations: Computers, Technology, Security

TECHNICAL SKILLS

Programming Languages: C++, Java, Python, Verilog, C
Certifications: GIAC Security Essentials, GIAC Foundational Cybersecurity Technologies
License: FCC Technical Class HAM Radio Operator (KO6FIE)

WORK EXPERIENCE

RTX (Raytheon Technologies), Intern — **June 2023 - July 2023**

- Designed a laser-based communication system to make long distance and space communications up to 100 times faster compared to RF systems.
- Prototyped my designs to transmit information using Pi Pico and IR LEDs
- Integrated a two-way communication system with an ACK protocol, repeaters, error correction, encryption, and secure coding practices into my suggestions Writeup, Slideshow
- Presented my research to 5 industry professionals in data transmission and computer science
- Collaborated with facilitators, mentors, and peers

City of Burbank Community Development, Intern — **June 2024 – August 2024**

- Verified time sheets, receipts, and employee reimbursements
- Catalogued and sorted 500+ files using Microsoft Excel and Word
- Designed flyers for the department for their events using Canva
- Helped at the front desk to answer questions from community members on receiving aid
- Created folders containing housing assistance resources and streamlined folder formation process

PROJECTS & EXPERIMENTS

- Implemented the Simple as Possible Computer architecture to create a CPU which performs arithmetic. Used Malvino's SAP-1 outlines and programmed the Nexys A7 AT-100 FPGA using Verilog language.
- Used an ESP8266 microcontroller board along with LED matrices to create a scrolling display. Text can be entered in an app built using MIT App Inventor.
- Created a working model of a home automation system controlled through a phone app. Uses ESP8266 programmed in C++ to connect to Wi-Fi access point and temperature sensors.
- Programmed an Arduino to accurately measure and display human response times to light, sound and touch stimuli. This was used to determine which sense humans respond to most quickly.
- Determined which colors of light provide optimal growing conditions for plants. Created a circuit to control the LED lights and tabulated plant height over time based on observations.
- Identified whether drip irrigation is more effective than periodic watering. Implemented a simple drip irrigation set-up along with a microcontroller-based system that releases water at specific intervals and tracked soil moisture over three weeks.

LEADERSHIP & AWARDS

Leadership: President & Founder - Digital Electronics Club
Chairwoman - Coding Club
Member - GIAC Advisory Board

Awards: Dave and Mary Crouch UCI ICS Merit Scholarship recipient, UC Irvine Alumni Association Endowed Scholarship recipient, Two-time National Cyber Scholarship winner, Math Kangaroo Competition 2nd rank nationwide and scholarship winner, National Merit Commended Scholar, California Scholarship Federation Gold Seal Bearer, State-level Gold-rank orchestra violinist