Rick Unite

Electrical Computer Engineering student eager to contribute and grow through internship roles

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EDUCATION

California State Polytechnic University, Pomona **Aug '22 - (Expected) Jun '26**

- **Major:** B.S Electrical Computer Engineering

- **Programming Coursework:** Object Oriented Programming, Digital Logic Design Verilog, Data Structures and Algorithms
- **ECE Coursework:** Electrical Circuit Analysis, Microelectronic Circuits, Control Systems Engineering, Signals and Systems, Biomedical

WORK EXPERIENCE

IT Intern **CHINT POWER SYSTEMS** **Jun '25 – Aug '25**

- Documented IT procedures and created internal guides to streamline onboarding and technical support
- Gained hands-on experience with cloud tools, device imaging, and Windows administration using VNC Viewer and SysAid
- Supported IT operations including hardware deployment software updates, user account management, and printer setup

Computer Systems Administrator **MARATHON PETROLEUM COMPANY** **Oct '23 – May '25**

- Collaborated with a 6-person team to roll out a new refinery-wide intranet that reduced page-load times by 40% for 150+ operators.
- Imported/exported SharePoint data into Excel to build Power BI dashboards-streamlined weekly safety-report generation
- Inspected and updated hundreds of operational forms, catching critical errors and ensuring compliance with safety rules

PERSONAL PROJECTS & EXTRACURRICULARS

Cat Heart Rate Monitor Harness **Nov '25**

- Designed a wearable ESP32-based heart rate monitor harness for a cat using an INMP441 MEMS microphone to detect rhythmic chest vibrations and stream real time metrics over ESP-NOW
- Purpose was to create a non-invasive, mobile method of measuring a cat/animal's heartbeat wherever they are at any given moment.

BB8 Robot **Oct '25**

- Engineered a BB-8 inspired rolling robot using a dual motor internal drive system with magnetic stabilization to control orientation inside a spherical shell
- Designed and tested the motor control architecture using an ESP32, BTS7960 motor drivers, Li-ion battery system, and created a joystick-based remote control using WiFi/ESP-NOW

Café Sumire Ticketing POS System **Jun'25**

- Developed a full-stack ticketing system using Node.js and Docker, enabling real-time order management between cashier and barista interfaces; configured local network communication via static IP addresses for multi-device synchronization
- Designed and implemented a responsive frontend in HTML, CSS, and JavaScript, creating an intuitive interface for placing, updating, and tracking orders in a café themed web application

WDI Imagination Disney Imagineering Competition **Nov' 24**

- Led a 3-person team as Project Manager and 3D Modeler for the WDI Disney Imagineering Competition, focused on reimagining public transportation in major cities.
- Coordinated weekly team meetings and enforced project milestone to ensure timely progress and deliverables
- Designed and rendered a detailed 3D train model using Blender to visually present our proposed transit solution and user experience

Magic Mirror (Smart Mirror) **Dec' 21**

- Engineered the mirror enclosure using custom cut wooden planks and two-way glass bought from Home Depot and Amazon
- Repurposed an LCD monitor by disassembling it to its core components, enabling seamless display output from the Raspberry Pi
- Deployed a Raspberry Pi as the core processor, configured the system with Raspbian OS, GitHub modules, Linux terminal commands and VNC Viewer, customizing modules to display real time news, weather and time

TECHNICAL SKILLS

- **Software:** C, C++, C# Raspbian, Python, Linux, MATLAB, Java, HTML/CSS, MPLAB, Blender, Fusion 360, Microsoft Tools, Unity, AutoCAD, Solidworks
- **Hardware:** Electrical Circuit Design, Constructing Circuits, Raspberry Pi, FPGA Nexus A7 100T, Microcontroller PIC18F4620, Soldering