Ethan Nguyen

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Experience

Software Engineer Intern, L3Harris Power Pargon Inc - Anaheim, CA June 2019 – January 2021

- Automated Jira tracking for 50+ tickets, cutting manual reports and boosting manager visibility.
- Debugged hardware/software for nuclear power systems, improving data accuracy and system reliability.
- Reviewed and maintained Confluence workspace with updated documentation and product architecture.
- Developed an application with a GUI that automates manual efforts on documentation by 30% to maintain consistency, compliance, and structure.

Caretaker Provider, In-Home Support Services – Fountain Valley, CA January 2022 - Present

- Providing technical and physical support to elderly users, resulting in improved digital literacy and accessibility.
- Configuring systems, setting up collaboration tools(e.g., Viber, Google Chat), and resolving hardware/software issues across multiple devices.

Skills

Languages: Python, C++, C, Verilog, Bash, VBScript
Tools & Platforms: Git, Atlassian (Jira, Confluence, Agile), Vivado, MathWorks MATLAB, CAD, Visio, Arduino IDE

Projects

An Embedded Weather Quest | C++ github/EmbeddedWeather

- Developed an IoT application that offers weather information to users upon input of a city name, City ID, or Zip Code
- Utilized the public weather API to create fetch requests that pull accurate weather temperatures.
- Designed a secure server-side system that uses API endpoints and WPA for user authentication through browser-issued tokens.
- Hardware used: ARM Micro Controller (TM4C123G, TEXAS INSTRUMENTS)

Bluetooth Remote Controlled Car | C++ github/name/BluetoothCar

- Applied knowledge of motor drivers, UART, synchronous serial port, PWM, and Bluetooth communication.
- Designed and built an RC car from basic components, controllable via a Bluetooth terminal app.
- Implemented complete motion control including forward, reverse, left/right turns, stop, and dynamic speed adjustment.
- Hardware used: ARM Micro Controller (TM4C123G, TEXAS INSTRUMENTS)

FPGA Oscilloscope | Verilog github/DIYoscilloscope

- Designed and implemented a real-time digital dual-channel oscilloscope, capable of sampling analog signals via ADC and displaying waveform data.
- Integrated UART communication to send waveform data to a PC for visualization or remote debugging verified functionality through simulation tools and real-time testing on development boards.
- Hardware used: FPGA Board (Artix-7 FPGA, Nexys 4 DDR, DIGILENT)

Education

California State University, Long Beach June 2022
Degree of Bachelor of science (BS) in Computer Engineering

- **Coursework:** MicroProcessors+Controllers, Embedded Systems, System on Chip Design, Digital Signal Process Design, Computer Architecture, Digital Design Tech Verification, Operating Systems