David Denny

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Phone: +1 (682)-401-2358 **Location:** Arlington, TX Website: davidisdennyus.com **Education: Skills:** Experienced (4+ Years) with the Microsoft Office, Google Drive, and Adobe Creative Suites Competent (3 Years) with MobaXterm and the C, C++, SystemVerilog, and MATLAB Programming Languages Familiar (1-2 Years) with CCS, Java, Python, HTML5, and simple CAD softwares Solidworks and SketchUp **Projects:** Simple Surveillance Robot | Embedded Systems: Created a simple surveillance robot from scratch, implementing and becoming acquainted with the various concepts of Embedded Systems. The robot travels and rotates with two wheels, driven by motors and implemented primarily using Texas Instruments' TM4C123GXL Red Board and the CCS suite. The robot can perform various movements and automations at specified distances, and sense movement and distance using various sensors. This project served to better understand the process of creating an embedded systems product, with concepts such as UARTs, PWMs, DRVs, and Soldering. Various Programming Projects | Programming Experience: o Unix Shell: Created a simple Unix Shell using C. Allows users to interact and run commands with a command line with a proper understanding of program creation and management. Custom xv6 System Calls: Using the xv6 Operating System as a foundation, altered and created multiple kernel-level system calls and test applications to better understand these systems. Portfolio Website: Created a website to better understand HTML and web design. The website serves as a portfolio, detailing my experience, projects, and online presence in greater detail. Link listed above. RISC V Processor From Scratch: Using an Xilinx Blackboard FPGA, created a RISC V Processor from scratch, implementing a five stage pipeline following AMD's RV32i base instruction set. Encapsulated Gardening Grounds | Senior Design / Capstone Project: Led hardware development for a self-contained, IoT-enabled gardening system, following Scrum project management. Using an Arduino R4 UNO WiFi, multiple sensors, fans, and a pump, created an embedded system that parses and logs data concerning temperature, humidity, moisture levels, etc. Hosted a local HTML website using the microcontroller to interface with a desktop application that facilitated automatic task scheduling for irrigation and humidity control, and monitoring of crop health. Modeled an enclosure to satisfy all product requirements under budgetary constraints. **Jobs and Experience:** Provided support in an IoT-focused role working to interface, repair, and inventory manufactured IoT devices, Performed on-site repairs of deployed IoT hardware. Participated and engaged in code reviews and meetings concerning the testing and development of both currently supported and future devices. Retail Work at Daylight Donuts and Chick-fil-a Inc. Huntsville, AL and Arlington, TX Established essential workplace skills in a fast-paced work environment. Demonstrated flexibility and speaking skills during arduous working hours in regards to customer service and team communication. **Honors and Awards:** College Board AP Scholar | Recipient August 2021