David Denny
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Website: davidisdennyus.com **Phone:** +1 (682)-401-2358 **Location:** Arlington, TX

Education:

- **University of Texas at Arlington |** ***3.714 GPA*** …… Arlington, TX
  Bachelor of Science in Computer Engineering ……... August 2023 - December 2025
- **University of Alabama in Huntsville |** ***3.85 GPA*** ……. Huntsville, AL
  Bachelor of Science in Computer Engineering …… August 2021 - May 2023
- **James Martin High School |** ***4.00 GPA, Top 10% of Graduating Class*** …… Arlington, TX
  STEM-oriented Schooling …… August 2016 - May 2021

Skills:

- **Experienced (5 Years)** with the Microsoft Office, Google Drive, and Adobe Creative Suites
- **Competent (3-4 Years)** with MobaXterm and the C, C++, SystemVerilog, and MATLAB Programming Languages
- **Familiar (2 Years)** with CCS, Java, Python, HTML5, Vivado, and 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:**
  - **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.
- **RTOS From Scratch | OS Programming Experience:** Creating a simple Real-Time Operating System. This RTOS is created from scratch and driven using a microcontroller. Through the use of an UART connection, users can interact with the RTOS, to run multiple threads at the same time with context switches and protection of the Kernel/User Space.
- **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:

- **IoT and Hardware Internship at Apptricity Corporation** …… Irving, TX
  IoT Intern and Part-Time R&D ……... May 2025 - December 2025
  - 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
  Retail Employee | *Multiple Roles* …… May 2022 - May 2025
  - 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:

- **UAH President's List and Dean's List** | *Recurring Recipient* ……... August 2021 - May 2023
- **UAH and UTA Merit-Based Scholarships** | *Recurring Recipient* …….. August 2021 - January 2025
- **College Board AP Scholar** | *Recipient* ……... August 2021