

Shaun Jacob

700 W Mitchell Circle, Arlington, TX 76013

+1 682-374-6106 | shaun50152@gmail.com | [linkedin.com/in/shaun-jac0b](https://www.linkedin.com/in/shaun-jac0b) | <https://github.com/ssj9132/projects>

EDUCATION

The University of Texas at Arlington

May 2026

Bachelors of Science (Honors) in Computer Engineering

GPA 3.96/4.0

- Maverick Academic Scholar, Freshman Distinction Roll, Dean's List, inSTEM Scholar, Leadership Honors Program
- Relevant Coursework:** Object Oriented Programming, Embedded Systems 1, Digital Logic Design 1, Operating Systems, Computer Organization & Assembly, Electronics, Signal Processing, Algorithms & Data Structures

EXPERIENCE

Learning Specialist

February 2024 – Present

Learning Access Center - University of Texas at Arlington

Texas

- Provided tailored support to 15+ students with Intellectual and Developmental Disabilities (IDD) in subjects such as Algorithms and Data Structures, Assembly Language, Discrete Structures and Web Development.
- Mentored students on resume optimization and career development strategies including interview preparation and networking skills, leading to an increase in job application response rates.

ELV Solutions Intern

July 2024 – August 2024

Zenion IT Infrastructure

Dubai

- Conducted preventive maintenance on ELV systems, minimizing equipment failures through periodic diagnostics.
- Collaborated with engineers and business managers to deploy innovative ELV solutions for the ongoing Aire Tower project in Dubai, successfully executing 2 major installations.
- Kept documentation of system configurations and troubleshooting procedures to ensure precise future references.

Front-End Development Intern

June 2024 – July 2024

ALEC Engineering

Dubai

- Developed a full-stack guestbook application using React and Express.js, achieving a 25% increase in user engagement through optimized front-end and back-end integration.
- Worked alongside a team of 4 developers utilizing Agile methodologies, actively participating in biweekly sprint reviews to enhance project outcomes.
- Designed common services for retrieving and storing visitor information in the guestbook application, ensuring seamless interactions with the database while maintaining data security.

Student Assistant

February 2023 – February 2024

Alternative Testing Center - University of Texas at Arlington

Texas

- Provided training and support for assistive technology to over 300 students, enhancing accessibility.
- Streamlined manual operations through automated processes, enhancing productivity.

PROJECTS

RLC Measurement System | *TM4C123GH6PM Microcontroller, C, Code Composer Studio*

November 2024

- Designed and implemented a system to measure resistance, capacitance, and inductance.
- Created custom commands (r, c, l) for a UART interface to initiate and control measurement cycles, leveraging comparator interrupts and timers for precision.
- Automated the conversion of timer values to electrical parameters using empirically derived formulas, enabling accurate measurements for components ranging from 1 F to 100 mF (capacitors), 1 to 10 k (resistors), and 10 H to 100 mH (inductors).

Custom Command Line Interpreter | *C*

September 2024

- Developed a Unix-like shell in C with built-in commands (cd, exit), external command execution using fork() and exec(), and robust error handling for invalid inputs and file access.
- Implemented file redirection and batch processing capabilities, supporting execution of up to 1000 system commands from predefined directories.

4x4 Rock Crawler Vehicle | *Arduino, C++, MIT App Inventor*

November 2021

- Achieved third place in the YAS 4x4 Nationals Competition by spearheading the development of the vehicle, incorporating mobile app control to enhance system management and user interaction.
- Enhanced vehicle performance by 34% through the integration of gyroscopic and LiDAR sensors on an Arduino platform, significantly boosting responsiveness and capabilities.

TECHNICAL SKILLS

Languages: Python, Java, C, C++, SQL, HTML, CSS, Bash, JavaScript, LaTeX, ARM Assembly, Verilog

Web & App Development: React, Express.js, Node.js, Framer, Bootstrap

Technical Tools: Git, Unix, PowerBI, Windows Batch Files, Intel Quartus Prime, AutoCAD, Code Composer Studio

Certifications: Foundations of User Experience (UX) Design, Developing Front-End Apps with React, Introduction to Computational Thinking and Data Science, Introduction to Computer Science and Programming Using Python

EXTRACURRICULAR

President | *Round Square*

April 2021 – June 2022

- Supported underprivileged students via the Adopt-a-School Program and hosted 3 global literacy symposiums.