

Brendan Nellis

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EDUCATION

The University of Texas at San Antonio

B.S. in Electrical Engineering concentration in Computer Engineering, GPA: 3.73

San Antonio, TX

Dec 2025

- Relevant Courses: C++ & Data Structures, Systems Programming, Computer Programming for Engineers, Data Communication & Networks, Artificial Intelligence, Machine Learning, Linear Algebra

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C, C++, HTML, CSS, MATLAB

Frameworks & Libraries: OpenCV, PyTorch, Keras, NumPy, Pandas, PyQt

Platforms & Tools: Linux, Ubuntu, Unix, Bash, Git, GitHub, Fusion 360, Fusion Circuit Design

EXPERIENCE

palletPortal

San Antonio, TX

Team Lead & Software Engineer Lead

Jan 2025 – Dec 2025

- Led development of an autonomous pallet scanning system by restructuring data workflows to scale barcode throughput from 1 to 9+ barcodes per pass
- Designed and rebuilt the front end application from scratch, refactoring an initially embedded implementation into modular class based components across separate code files to improve maintainability and system organization
- Redesigned application execution flow using state flags, increasing GUI runtime from 1 cycle to 4+ cycles and enabling extended continuous operation of over one hour during repeated test runs
- Engineered a modular interface layer to thread 2 cameras and 2 ultrasonic pin sensor inputs; created reliable integration of heterogeneous hardware components in a high throughput scanning environment

The University of Texas at San Antonio

San Antonio, TX

Student Assistant I

Jan 2023 – Dec 2025

- Designed and maintained operational data systems by organizing 86+ annual elevator records and 528+ exterior lighting records across 7 campuses
- Identified and corrected 5% of reporting errors in third party contractor documentation through validation, review, and data quality control processes prior to submission to the Texas Department of Licensing and Regulation
- Led documentation modernization efforts by digitizing records and storing in the cloud; improving accessibility and version control management across various cross-functional operations teams

The University of Texas at San Antonio

San Antonio, TX

Undergraduate Researcher

May 2024 – Aug 2024

- Developed a simulated driving exam using CARLA to evaluate driver behavior across 5 traffic rules including turn signals, stopping position, braking behavior, and lane discipline
- Developed automated scoring logic that generated structured performance metrics from simulated driving behavior, with resulting scores typically ranging from 60–80% across test scenarios
- Collaborated with designated PhD student and another undergraduate to diagnose simulation performance issues; resulting in graphics card hardware upgrades and installation of the GPU to enable smooth execution of CARLA simulations

DHL Supply Chain

San Antonio, TX

Tasker

May 2021 – July 2022

- Designed and implemented a FILO inventory handling system to prioritize movement of older stock, supporting the controlled flow of \$100M+ in inventory
- Coordinated inbound logistics for 500k+ ductless mini split units by working with brokers and teams in Houston and Los Angeles to ensure timely container processing
- Optimized daily operations by restructuring staffing from 8 rotating workers to a dedicated 4 person team, improving consistency, accountability, and organization