Daniel Roque De Escobar

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EDUCATION

Florida International University, Miami, Florida

BS Computer Engineering, BS Mathematics **Expected May 2026**

- 3.46 GPA

Relevant Course Work

- Logic Design and Embedded Computing
- Computer Architecture
- C, C++, Python, and Java Programming
- Data Structures and Algorithms
- Mathematical Optimization and Linear Algebra II
- Multivariate Statistics II

SKILLS

Programming Languages: VHDL, System Verilog, C, C++, Python, Perl, Java, JavaScript, TypeScript
Technologies: Oracle Cloud, Docker, Git, Perforce, Linux, React, Next.JS, Vivado
Multilingual: Fluent in English, American Sign Language, and Spanish

LEADERSHIP & WORK EXPERIENCE

Nvidia Post Silicon Engineer Intern, Santa Clara, CA **May 2025 – August 2025**

- Developed and integrated an automated testing pipeline for silicon Boot Configuration Tables (BCTs) within the existing testbench infrastructure, ensuring accurate register programming for frequency-dependent configurations.
- Built a custom Python tool with bespoke parsing logic to automatically compare DVFS tables from independent simulation and post-silicon pipelines, detecting discrepancies in register values and data types to prevent integration errors before ROM programming

Nvidia Infrastructure Engineer Intern, Santa Clara, CA **May 2024 – August 2024**

- Automated Coverity static analysis with a Perl-based tool, integrating results into a custom dashboard that tracked MISRA C violations across changelists, enabling real-time compliance monitoring and trend analysis.
- Built a real-time visualization dashboard using Elasticsearch, Logstash, and Kibana (ELK Stack) to display MISRA C violation trends from automated Coverity scans, enabling engineers to quickly identify and address compliance regressions.

Research @ Phaselab Florida International University, Miami, FL **Jan 2025 – May 2025**

- Designed and coded a custom Peak Signal-to-Noise Ratio (PSNR) evaluation pipeline in Python.
- Developed and implemented a Bayesian optimization framework in Python/PyTorch to tune parameters of a Doubly Nonlocal Cahn–Hilliard Equation–based image inpainting model, achieving a 10.35 dB improvement in Peak Signal-to-Noise Ratio (PSNR).

Calculus 3 Undergraduate Teaching Assistant, Miami, FL **August 2023 – May 2025**

- Led after-school sessions for up to 30 students, impacting academic achievement and improved understanding of multi variable calculus topics
- Partnered with lead professor to co-deliver comprehensive in-classroom instruction to an audience of 50 students

Research @ Serlop Labs Florida International University, Miami, FL **March 2023 - July 2023**

- Learned Verilog and VHDL in a laboratory environment
- Collaborated with a team of researchers to conduct hardware security testing, aimed at detecting critical vulnerabilities within computer chip supply chain.

PROJECTS

Diceman, FreeRTOS|ESP-32|C++
@ ShellHacks Miami, Florida **September 2024**

- Built a handheld electronic dice roller on an ESP-32 microcontroller with a display, rotary encoder, and buttons to simulate rolling multiple dice types for role-playing games.
- Programmed the dice-rolling logic and hardware input handling in C++ using FreeRTOS, integrating button and encoder controls with the on-screen interface.

Job Sniffer, TypeScript|Google Cloud|Google Bard
@ AiAtl Atlanta, Georgia **November 2023**

- Designed a website that leveraged AI to autonomously process user emails, discern job application correspondences and manage and notify users about impending deadlines and upcoming interviews.

ASLang, Python|Computer Vision|AI|Next.js
@ KnightHacks Orlando, Florida **October 2023**

- Developed an AI-powered website that gamifies American Sign Language learning, implementing a Java backend and integrating user video feeds with the computer vision model via Webhooks API.

How Much Car, Typescript|React|CSS|Next.js|Github
@ ShellHacks Miami, Florida **September 2023**

- Developed a CRUD website that calculates monthly car payments and matches users to vehicles based on their annual salary, with the aim of enhancing financial literacy regarding car debt