Joseph D. Moreno

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EDUCATION

Bachelor of Science in Computer Engineering, University of South Florida, Tampa, FL — Aug 2020
GPA: 3.27

SKILLS

Programming Languages | HDL:	C++, TypeScript, Python, SQL, LabVIEW, C, C#, Java | VHDL, Verilog
Web Development:	Django, React, HTML, CSS
Software/Environments:	Git, MySQL, nginx, MinGW, Visual Studio, Node.js, AMD Vivado / ISE, EasyEDA, FreeCAD, XJTAG
Platforms/Operating Systems:	AWS, Windows 7/8/10/11, Android, Linux

WORK EXPERIENCE

R&D Engineer / Software Developer - Global ETS, Odessa, FL — Nov 2020 – Apr 2025

- Automated component testing using VHDL and LabVIEW (QMH and actor framework).
- JTAG / boundary-scan testing bare FPGA chips.
- Web app full-stack development; Django-React, deployed on AWS EC2 instance.

PROJECTS

SDRAM Testing, Global ETS — Apr 2021 – Oct 2021

- FPGA controller written in VHDL, implemented using AMD Vivado workflow.
- SPI used between controller and NI VirtualBench to verify written data.
- User-level LabVIEW program for operators to log passed / failed chips.

Automated Testing, Global ETS — May 2021 – Dec 2021

- Sequenced control of a robot arm, steppers, cameras and electronic testing equipment.
- NI machine learning to detect orientation in socket, TensorFlow deep learning to detect package defects.
- C# DLL from the Dobot SDK to control robot arm through LabVIEW.
- 3D printed parts using FreeCAD and slicers.

LabVIEW Curve Tracer, Global ETS — Jan 2022 – Jan 2025

- Implemented using 2 oscilloscopes and a function generator.
- PCB design with EasyEDA.
- Used for day-to-day electrical testing and report building.

Tracking System, Global ETS — Jan 2022 – Jun 2024

- Server-client LabVIEW programs for communicating real-time internal information.
- Implement requirements from users regularly.
- Tree data relations, stored in closure tables.
- Django-React + MySQL prototype made and deployed on AWS.

Chip-8 Emulator, Personal Project — May 2020 – Present

- SDL library to handle keystroke input and graphics/audio output.
- Chip-8 architecture written in C++.
- Bitwise operations used to decode and execute Chip-8 ROMs.