

# Joseph D. Moreno

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## EDUCATION

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**Bachelor of Science in Computer Engineering**, University of South Florida, Tampa, FL

Aug 2020

GPA: 3.27

## SKILLS

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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, Xilinx Vivado / ISE, EasyEDA, FreeCAD
Platforms/Operating Systems:	AWS, Windows 7/8/10/11, Android, Linux

## WORK EXPERIENCE

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**R&D Engineer / Software Developer** - Global ETS, Odessa, FL

Nov 2020 – Apr 2025

- Automated electronic testing using VHDL and LabVIEW (QMH and actor framework).
- Web app full-stack development; Django-React, deployed on AWS EC2 instance.
- 8086, 8088 architecture processor research

## KEY PROJECTS

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Please visit <https://josephmoreno.github.io> for interactive demos and a more complete view of my projects.

**SDRAM (MT48LC2M32B2) Tester**, Global ETS

Apr 2021 – Oct 2021

- Studied a datasheet, documented points for controlling the chip, and planned out a circuit.
- VHDL state machine for using an FPGA as the controller.
- LabVIEW program to receive signals from the FPGA and log passed / failed chips.

**Chip-8 Emulator**, Personal Project

May 2020 – Jun 2020

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

**Tile-Based Game**, Personal Project

May 2025 – Present

- SDL used for mouse-key input, graphic rendering, audio output, and Entt used for ECS.
- C++ source ported to JavaScript and WebAssembly using emscripten.
- Graphical assets made using GIMP and Tiled.

**Tracking System**, Global ETS

Jan 2022 – Jun 2024

- Server-client programs for communicating real-time information within the company.
- Implement requirements from users regularly.
- Tree data relations, stored in closure tables.

**Testing with Vision-Motion Automation**, Global ETS

May 2021 – Dec 2021

- LabVIEW program to sequence the control of multiple instruments, including cameras and electronic testing equipment.
- Created C# DLL from the Dobot SDK to control their robot arm through LabVIEW.
- Deep learning model to visually identify electronic package defects.