AMARNATH S. PATEL

apatel6ty@protonmail.com | apatel.co | +1 561-603-2661

EDUCATION

University of Central Florida   **Undergraduate Student**

Electrical Engineering, Photonics Science and Engineering, Computational Physics   August 2025 - Present

- Relevant Coursework: Geometric Optics

Florida Atlantic University   **3.65 GPA**

Computer Science coursework - High School Diploma   August 2021 - May 2025

- Background in Embedded Systems, UNIX systems, Web Development, AI/LLMs, OS development & quantum computing
- Relevant Coursework: Data Structures and Algorithms, Computer Logic Design, Matrix Theory, C & C++ programming, Deep Learning, Computer Architecture

SKILLS

C/C++, Nix, Rust, Zig, Verilog, Shell (Fish, Bash, tcsh), Helix, Docker, Git, AI-LLMs, Rustup, CMake, Linux Distributions, BSD, Windows, Proxmox, OpenSolaris

PROFESSIONAL EXPERIENCE

IEEE UCF CPU Project - Kernel Development Team   August 2025 - Present

- Developing kernel-level software for RISC-V CPU built from scratch, porting Doom and Quake to custom hardware architecture

Learning Assistant - Employee   August 2024 - May 2025

- Assisted undergraduate students with learning calculus. Part-time position (10h/week).

Advanced Experimental Vehicles - Programmer, Leader, Builder   November 2023 - May 2025

- Developed Electron app using Raspberry Pi 5 for monitoring and controlling solar car systems
- Won 2nd Place in Division and Lockheed Martin Award for "Highest Level of Engineering Excellence"

Chameleon Research Project - Programmer   January 2024 - March 2025

- Developed AI/LLM powered research project for writing, grant funded by Florida Atlantic University with HPC access

PROJECTS

[UniUtils](https://apatel.co)   October 2023 - November 2024

- Schedule generation tool for students with classroom finder functionality. 1st Place at Night Hacks 2023 hackathon, submitted to ShellHacks

[limebar](https://apatel.co)   December 2024 - March 2025

- Wayland graphical status bar using pango, cairo, xdg-shell-client protocol and wlr-layer-shell-unstable