

Shawn Pande [he/him] Undergraduate BS ECE / MS CS

📍 Worcester Polytechnic Institute ✉ 100 Institute Rd, Worcester, MA 01609, WPI Box 8021

🌐 [d3bug64.codeberg.page](#) 🔄 [pandecode](#) **in** [shawn-pande](#) 🌐 [d3bug64](#)

Education

Worcester Polytechnic Institute ----- 📅 Aug 2025 – Present

Bachelors Electrical and Computer Engineering / Masters Computer Science (in progress)

Davis United World College Scholar | Dean's List 2025

Graduate Coursework: Foundations of Computer Science, Data Visualization

Relevant Undergraduate Coursework: Operating Systems, Computer Graphics

Student Organizations: Computer Graphics Demolab, IEEE, ACM, Cybersecurity Club

United World College Costa Rica ----- 📅 Aug 2023 – May 2025

International Baccalaureate Diploma (Bilingual, Extended Essay: Chemistry) | **HL:** Mathematics AA, Physics, Chemistry | **Clubs:** Computer Science, BJJ, Chess | **Activities:** Community Service, River Cleaning

Experience

Student Staff, Sports & Recreation Center (Worcester Polytechnic Institute) --- 📅 Aug 2025 – Present

Front/Control desk attendant responsible for the daily operations: monitoring building access, validating ID cards and guest passes for facility access, ensuring cleanliness of fitness equipment, roaming the buildings, and enforcing rules and policies.

Coding Instructor (St. Mary's College Kisubi IT Club, Uganda) ----- 📅 2022 – 2023

Taught weekly Python and web development sessions to secondary school students. Additionally, taught fundamentals of cybersecurity capture the flag to teams within the school.

Selected Projects

- See [codeberg](#) and [github](#) for a full list of projects.
- **Graphics Related:** OpenGL engine to recreate voxel-based game | Wgpu-Native Renderer for shader experimentation | On-screen Renderer for Display Server Sprites and animation | CPU SDF Ray Marcher and RayTracer in Common Lisp | Terminal Emulator Renderer With LibNotCurses
- **Systems Related:** Implemented a Satisfiability Solver for College Class Selection | Wayland Display server | Gtk4 and Qt6 Display Server Shells
- **Open-source contributions:** astal-shell, waybar, mpls, snacks.nvim, hover.nvim, neovim, nixpkgs

Awards

picoCTF Competition Winner ----- 📅 2023

Led a team that obtained first place on the Ugandan leaderboard (Carnegie Mellon University Africa cybersecurity CTF). Solved capture the flag-style problems; binary exploitation, cryptography, digital forensics, web exploitation, reverse engineering.

Skills

- **Programming** – C, C++, Python, Bash, Lua, CommonLisp, Zig
- **Tools & Software** – LaTeX, Typst, CMake, Nix, Neovim, Blender, ZBrush, Godot
- **Systems/Libraries** – Linux (Good basis with POSIX APIs and administration in NixOS, Arch, Debian), Wayland, X11, Gtk3/4, curses,
- **Graphics/Visualization** – OpenGL, wgpu, wgpu-native, CUDA, Matplotlib, D3.js
- **Hardware** – PCB design (KiCad), embedded programming
- **Web** – React, TypeScript, CSS, Vue, Yew(Rust)