GABE ALVARADO

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EDUCATION

University of North Carolina Wilmington — Wilmington, NC
Bachelor of Science in Software Engineering — Expected May 2028

Isothermal Community College — Spindale, NC
Certificate in Programming and Game Design

PROJECTS

SharkPad | *Python*, *PySide6* — sharkpad.net

- Built a note-taking app for students who need to capture a lecture while drawing, like organic chemistry structures, combining voice dictation, text editing, and drawing in one window
- Designed and shipped it solo, reaching 150+ downloads across Windows, macOS, and Linux builds
- Ran Whisper speech-to-text locally with faster-whisper for offline dictation alongside typing and drawing, plus one-click note explanations through Groq's LLM API
- Automated releases with a GitHub Actions pipeline that packages PyInstaller builds for Windows, Linux (AppImage), and macOS (Apple Silicon and Intel)

RunBun Sandbox | *C++*, *OpenGL*, *GLSL* — github.com/GabeyShark7/RunBun-Sandbox

- Built a real-time 3D model viewer and editor from scratch with a custom OpenGL pipeline and GLSL shaders, rendering the scene to a framebuffer displayed in an editor viewport panel
- Implemented FBX, glTF, and GLB import via Assimp with per-object textures, multi-object selection and deletion, and position, rotation, and scale controls
- Designed a Dear ImGui editor with Scene, Objects, Properties, and Console panels and a WASD and mouse-look first-person camera
- Planning multiplayer scene editing over peer-to-peer networking in Rust with rust-libp2p

Enterprise Linux Migration, 45Drives | *Ansible*, *Linux*, *SSH* — Completed

- Migrated 45Drives' Windows-based work environment to Zorin OS Linux as part of a six-person team
- Wrote Ansible playbooks for tool installation and user account creation, deployed from a central control node to target machines over SSH and Tailscale
- Contributed to an idempotent deployment design: new machines are enrolled by adding them to inventory and rerunning the playbook

EXPERIENCE

Digital Maker Space Assistant, UNC Wilmington — Aug 2026 – Present

- Support students and faculty on 3D printers, laser cutters, and other fabrication tools
- Troubleshoot hardware and print failures and guide users through design software

TECHNICAL SKILLS

Languages: Python, C++, Java, SQL, JavaScript, HTML, CSS

Graphics & UI: OpenGL, GLSL, Assimp, Dear ImGui, GLFW, GLM, PySide6 (Qt)

Infrastructure: Ansible, Linux (Zorin OS, Ubuntu), SSH, Tailscale, Git, GitHub Actions

AI-Assisted Development: Claude Code, OpenAI Codex, LLM API integration

Tools: VS Code, PyCharm, MSYS2/MinGW, PyInstaller