

Felipe Campoverde

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EDUCATION

- **Virginia Tech Bachelor of Science in Computer Science** • GPA: 3.0 • Blacksburg, VA *Expected May 2026*

EXPERIENCE

Chief Software Engineer - CroQuest (C/C++, BLE, Bash, Git, Bluetooth, PlatformIO) *March 2025 - Present*

- Engineered a custom educational handheld game console using ESP32-WROOM, SD card, and BLE
- Wrote 5,000+ lines of C/C++ to develop 8+ retro-style games including Snake, Pong, Tetris, and Tic Tac Toe
- Designed and implemented Bluetooth multiplayer logic, asset rendering, and UI feedback for each game

Autonomous Car - VT CRO (C++, Python, ROS, RVIZ, Linux, XML, Git, SSH) *September 2024 - June 2025*

- Developed autonomous navigation with SLAM using ROS2 and Gazebo
- Integrated hardware sensors (LiDAR, camera, Arduino) to build a fully autonomous robotics platform

Linux Systems (Haskell, Lua, C/C++, Nvim, Hyperland, Waybar, VM, File Systems, Terminal) *2019 - Present*

- Configured Arch Linux daily driver; managed Hyperland WM, Waybar, extensions, lock screens..
- Set up and Troubleshoot Bluetooth, WiFi, and system services to improve workflow and hardware compatibility
- Performed system installs, SSD partitioning, data migrations; debugged boot and kernel issues to restore system stability
- Built automation scripts and custom configs in Lua, Haskell, and Bash, extending functionality and optimizing workflows.

SOFTWARE PROJECTS

Full-Stack Portfolio Website (React, JavaScript, HTML/CSS, Node.js, MongoDB, WebGL, Netlify, Blender)

- Built a dynamic web app to visualize datasets via interactive charts (bar, pie, scatter) and coordinated views
- Integrated file import/export, axis configuration, and responsive UI for polished user experience
- Learn more about [Felipe Campoverde](#)

Multithreaded Fork/Join Threadpool, Concurrency, Work-Stealing, Task Queues (C)

- Designed a high-performance threadpool supporting dynamic task distribution and parallel execution
- Implemented thread-safe queues and synchronization using condition variables and mutexes

LEADERSHIP

Co-Founder & CTO | CroQuest LLC | Virginia | Blacksburg, VA *June 2025 - Present*

- Co-founded an educational technology company delivering hand-on STEM learning programs.
- Taught 100+ students electronics, embedded programming, and console assembly through workshops and camps.
- Guided long-term technical roadmap, product scalability, and partnerships with local schools.

Student Assistant Manager | Virginia Tech | Blacksburg, VA *January 2024 - Present*

- Supervise 10+ student staff, ensuring compliance with safety and service standards
- Provide bilingual (English/Spanish) support to staff and customers in high-paced service environments

Peer Mentor, Ceed | Virginia Tech | Blacksburg, VA *September 2024 - December 2024*

- Supported first-year engineering students through workshops, academic mentoring, and study group facilitation

SKILLS

- **Languages** C, C++, Python, Java, JavaScript, HTML/CSS, Haskell, Lua
- **Web & Full-Stack Development** React.js, Zustand, Node.js, Express, MongoDB, REST APIs
- **Embedded & Robotics** ESP32, Arduino, PlatformIO, Bluetooth (BLE), ROS2, URDF, RViz, Gazebo, LiDAR, RealSense
- **Tools & Systems** Git, Linux, VSCode, Netlify, Blender, SD Card Interfaces, WebGL, Blender, SD card interfaces
- **Other:** Bilingual (English/Spanish)