

# Michael John O'Brien

• <https://github.com/MichaelJohnOB>

• [www.linkedin.com/in/mjob/](http://www.linkedin.com/in/mjob/)

---

## SOFTWARE ENGINEERING PROFILE

---

- I enjoy building programs that work well and are efficient.
- I am looking to get into a more hands on role.

## TECHNICAL SKILLS

---

- Languages: C, C++, Tcl, Python, JavaScript, PowerShell, Bash
- Systems/Tools: Linux, Git, CMake, gcc/gdb/make, vi/vim/tmux
- Graphics/Low-level: Bare-metal C, OpenGL

## Current Technical Project

---

- Developing a minimal cross-platform GUI/renderer in C with no external dependencies, focusing on low-level graphics, event handling, and portability.

## NON-TECHNICAL SKILLS

---

- Problem Solving - Critical Thinking - Effective Communication - Time Management - Adaptability - Teamwork - Leadership - Creative Thinking

## PROFESSIONAL EXPERIENCE

### **BGI LLC, Arlington, TX *Software Engineer***

*March 2024 – October 2025*

- Built Python/PowerShell automation pipelines to compare simulation outputs across NGTS versions, reducing manual analysis time and enabling faster regression testing.
- Debugged C++ applications for F-18 and F-16 Flight Simulators using gdb; contributed cleanup and fixes for reliability.
- Created architectural drawings and UML diagrams for multiple simulation subsystems.

### **Self-Employment, Indian Land, SC *Software Engineer***

*May 2023 – February 2024*

- I began work on a long term project for a GUI Library/Renderer written in C since I want minimal dependencies and language simplicity. I learned various aspects of starting a project from scratch along with structuring the development timeline. I also learned how to deal with failures that arose along the way.

### **BGI LLC, California, MD *Software Engineer***

*August 2022 – May 2023*

- Applied bug fixes and feature enhancements in Next Generation Threat System (NGTS) for the navy, utilizing advanced C++ to improve simulation accuracy and reliability.
- Worked with a diverse team to align NGTS with the development vision, demonstrating effective team collaboration as well as the ability to follow a team based workflow.

## EDUCATION

---

### **Clemson University, Clemson, SC *August 2018 - May 2022***

*Bachelor of Science in Computer Science, GPA: 3.85*

- Deep comprehension of algorithms, data structures, operating systems, compilers, programming languages, application development, and library development/maintenance.
- I learned foundational patterns common in software engineering for Desktop/Web applications