RICHARD MALIYETU

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SUMMARY

Recent Computer Science graduate with strong proficiency in C++, Linux systems programming, and object-oriented software design. Experienced in delivering high-quality software through project-based work and collaborative Agile teams, using tools like Git and peer code review. Skilled in debugging complex C++ applications, managing memory, and navigating Linux environments. Adept at presenting technical solutions clearly and contributing to scalable, secure development efforts. U.S. Citizen, available full-time, and eligible for Department of Defense Secret Clearance. Actively seeking software engineering roles, particularly in defense or systems-level development.

EDUCATION

University of Maryland, Baltimore County (UMBC)   **May 2025**

Bachelor of Science, Computer Science (GPA: 3.6)
- **Achievements:** Recognized on the Dean's List for academic excellence
- **Coursework:** OOP (C++), Software Engineering, Operating Systems, Data Structures, Algorithms, AI, DBMS

Community College of Baltimore County (CCBC)   **June 2023**

Associate of Science, Computer Science (GPA: 3.1)
- **Coursework:** OOP (Java), Python, Calculus, Linear Algebra, Physics, Discrete Mathematics

TECHNICAL SKILLS

- **Languages:** Python, C++, Java, JavaScript, SQL, HTML5, CSS3
- **Frameworks/Tools:** Linux, Git, FastAPI, React, Tailwind CSS
- **Databases:** MariaDB, PostgreSQL
- **Concepts:** Object-Oriented Programming, Systems Programming, Data Structures & Algorithms, Multithreading, Operating Systems, Debugging and version control
- **Platforms:** VS Code, Ubuntu, Linux Kernel, GitHub
- **Certifications:** CompTIA Security+ (in progress), CodePath Web and iOS Development

RELEVANT PROJECTS

UMBC Essentials Inventory | *React, FastAPI, MariaDB*
- Led a collaborative, Agile-driven campus initiative to build a full-stack inventory system that increased access to essential resources for students in need.
- Designed and developed both frontend and backend with secure Role-Based Access Control (RBAC) for admins and students.
- Participated in daily standups, sprint planning, and peer reviews to drive timely delivery.
- Significantly improved tracking accuracy and reduced manual overhead through group-based feature planning and testing cycles.

Custom Linux Kernel Module | *C, Linux*
- Wrote a loadable kernel module for analyzing process scheduling and low-level system behavior.
- Utilized printk, dmesg, and GDB for kernel-level debugging and tracing system calls.
- Gained deep understanding of memory handling, interrupts, and process state transitions.

Airline Route Planner | *C++, Linux*
- Simulated an airline routing system with custom file parsing and data structure design.
- Developed a lightweight graph traversal algorithm with route reversal and dynamic filtering.
- Emphasized unit testing and debugging custom classes and recursive logic under constrained input formats.

Movie Player | *C++, Linux*
- Created a playlist-based movie player using C++ templates, linked lists, and operator overloading.
- Implemented memory-efficient data structures and robust input validation.
- Focused on debugging segmentation faults, memory leaks, and pointer dereferencing issues with tools like Valgrind.

Travel to Utopia (Space Exploration Game) | *C++, Linux*
- Developed a space game where players navigate galaxies, mine fuel, and combat enemies while upgrading their ship.
- Wrote modular, object-oriented code for ship systems and combat logic.
- Focused on resolving race conditions, floating-point precision errors, and performance bottlenecks during playtesting.

HobbyMatch | *React, FastAPI, PostgreSQL, Firebase Auth*
- Ongoing personal initiative to build a social platform that improves how people collaborate through shared hobbies and interests.
- Built with a modular architecture using React, FastAPI, and PostgreSQL, featuring secure Firebase authentication.
- Intended to be an open-source project to foster community contributions, transparency, and collaborative feature development.
- Emphasizes clean API design, scalable backend logic, and maintainable code for future contributors.

Editor App (SaaS) | *Next.js, Prisma, NeonDB, Clerk Auth*
- Built an image/video editing tool with secure user authentication, session control, and cloud persistence.
- Addressed common production issues like file race conditions, API timeouts, and access control edge cases.
- Prioritized user privacy with robust authentication and access control

RELEVANT TECHNICAL EXPERIENCE

- **CodePath iOS Development Bootcamp**:
  -Built Swift-based mobile apps with UIKit and REST APIs, focusing on MVC architecture and persistent storage.
  -Collaborated in peer-led sprints with Git-based workflows, code reviews, and iterative prototyping.
  -Quickly learned the Apple dev ecosystem and debugged UI issues, memory leaks, and API errors.
- **CodePath Web Development Bootcamp** :
  -Developed full-stack apps using React, Node.js, and Express in Agile teams with daily standups and retros.
  -Adapted rapidly to unfamiliar stacks while implementing authentication, routing, and secure APIs.
  -Resolved bugs related to async logic, state management, and backend integration.