https://github.com/grahambuccheri

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UNIVERSITY OF MARYLAND

Graham J. Buccheri

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410-698-2761

Education: 2021-2025

University of Maryland College Park – College of Computer, Mathematical and Natural Sciences: B.S. Computer Science

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Core Knowledge and Skills

- Programming: Java , C, C#, C++, Ruby, Ocaml, Rust, MIPS Assembly, Python
- Editors: Eclipse IDE, VS Code, Atom
- Systems: Windows, Ubuntu, Unix, VirtualBox, Docker, Git, Cisco Meraki
- Computer Vision and Machine Learning techniques, LLM, Roboflow, YOLOv5
- Computer/Network Security, Computer Networks
- Software penetration testing
- Cryptography Techniques, Secure Software Development
- CTF Challenges, XSS and CSRF, SQL injection
- STL-Anomaly detection, Pathfinding Algorithms
- Gazebo/ROS (Robot Operating System)
- VR/Augmented Reality Development

Work Experience

Computer Vision Software Developer | XFoundry@UMD | March 2024 - Present

Engineered aerospace software solutions for UAVs, specializing in computer vision and machine learning. Contributed to the XPRIZE Wildfire project by developing algorithms for real-time wildfire detection. Collaborated with multidisciplinary teams to optimize UAV performance in diverse environments, enhancing autonomous capabilities for wildfire management.

Additive Manufacturing Lab Technical Supervisor | Terrapin Works | August 2023 – May 2024

Manufacture customer orders to their design specifications using additive manufacturing technologies. [FDM,Resin,Nylon] Facilitate and oversee the training of lab technicians and trainees. Manage lab processes and ensure quality of manufactured parts.

Development and production of aerodynamic components in partnership with Formula SAE competition

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Software Development/Aerospace Research | University of Maryland | March 2022 – August 2024

Commence flight tests and demonstrations for aerospace-related projects. Diagnose issues and repair flight systems on unmanned aircraft—program autopilot software for fully autonomous flights. Further develop software for flight systems and image analysis. Debug subsystems on airframes. Contributed to software development on models for STL-Anomaly detection from large data sets.

Information Technology Internship | Baltimore County Public Schools | August 2019 – June 2021

Maintain network systems in order to streamline processes. Diagnose and repair hardware and software faults. Audit security vulnerabilities within local networks.

Activities & Accomplishments

UAV Research | 2022 – 2023 | Software

Submitted research on software using visual models to plan flight paths on UAVs and avoid obstacles in-flight| IEEE

Independent Game Dev | 2022 – 2024 | Game-Engines

Developed a submarine simulation featuring procedural terrain generation in C# using Unity Game engine