Jalen Edusei

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EDUCATION

University of Georgia, Morehead Honors College, Athens, GA — May 2026
Bachelor of Science, Computer Systems Engineering — GPA: 3.65

SKILLS

Programming: Assembly, C, C#, C++, HTML, Java, JavaFX, JavaScript, MATLAB, Python, R, SQL, Verilog
Software: Autodesk Fusion 360, Blender, CAD, Figma, Git, GitHub, Microsoft Suite, NASA F Prime, Unity3D, Virtual & Mixed Reality, Zephyr
Hardware and Embedded Systems: 2U CubeSat, Basys2 FPGA, Raspberry Pi Pico 2W, Raspberry Pi 4, Sensors, Signal Processing, STM32 Microcontrollers

RELEVANT EXPERIENCE

Capital One, *Business Analyst Intern,* McLean, VA — June 2025 – August 2025

- Spearheaded development of a business case for a Notifications Preferences Center for CreditWise, projected to streamline customer communication management for 60M+ users.
- Analyzed performance of CreditWise email campaigns, creating a valuation framework to quantify engagement and retention impact and propose a new email domain.
- Leveraged SQL, Python, Excel, and data visualization tools to evaluate KPIs, delivering insights that informed product roadmap decisions and messaging strategy.

PROJECT EXPERIENCE

MEMESat-1 Flight Software — Small Satellite Research Laboratory
C++, NASA F Prime, Embedded Systems — March 2024 – December 2024

- Developed CubeSat flight software in C++ using NASA F Prime framework, optimizing embedded system performance on Raspberry Pi Compute Module 4 for a defense-adjacent mission context.
- Achieved 90% line coverage and 60% branch coverage through comprehensive verification suite, ensuring software safety and mission reliability.

AnimalDot — Capstone Design
Embedded Systems, Signal Processing, Mobile Dev — August 2025 – present

- Designing a contactless smart sensing bed to monitor animal heart rate and respiration using geophone-based vibration sensing, prioritizing minimal disturbance and continuous data collection.
- Developing a modular pipeline integrating geophones, load cells, and temperature sensors with analog signal conditioning and filtering to separate physiological signals from environmental noise.
- Architecting an embedded-to-mobile system that transmits processed data to a companion application for real-time visualization and health insights.

Kitchen Chaos VR — Virtual Reality
Unity, C#, Networked Multiplayer — October 2025 – December 2025

- Built an Overcooked-style multiplayer VR cooking game for Meta Quest 3 in Unity, implementing physics-driven interactions, locomotion, and object handling across a modular C# architecture.
- Integrated VelNet networking to synchronize player avatars and game state, enabling reliable session flow with deterministic event handling.

CAMPUS & COMMUNITY INVOLVEMENT

Vice President, *National Society of Black Engineers* — May 2025 – present

- Lead a 100+ member chapter in strategic planning, aligning operations with national initiatives and regional directives.
- Design and implement a centralized digital resource hub, providing internship pipelines, alumni contacts, and project archives to boost member success.