Faith Anyanwu

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EDUCATION

University of Maryland, B.S. in Computer Science & Mathematics, GPA: 3.70 / 4.0 **Expected Graduation:** *Dec 2027*
Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Computer Systems, Linear Algebra
Membership: UMD Competitive Programming, ColorStack, National Society of Black Engineers, Google Student Developers Club
Concentration: Machine Learning and High Performance Computing

TECHNICAL SKILLS

Programming Languages: C++, Python, C, Java, TypeScript, JavaScript, MATLAB, HTML, CSS
Frameworks & Tools: React.js, Linux, Git, MongoDB, OpenGL, SFML, FastAPI, Vite, Tailwind CSS

WORK EXPERIENCES

Amazon Project Kuiper **College Park, MD**
Software Developer (Contract) *Sep 2025 – Jan 2026*
- Incoming Fall 2025 Software Developer Intern for Amazon Project Kuiper in collaboration with App Dev Club

Big Think AI **College Park, MD**
Machine Learning Engineer | TensorFlow, Keras, CNNs, MNIST Dataset *Jan 2025 – May 2025*
- Developed a handwritten digit recognition system using Convolutional Neural Networks (CNNs) on the MNIST dataset, achieving 95%+ accuracy with TensorFlow and Keras.
- Optimized preprocessing pipelines for 60,000+ images, cutting training time and boosting model accuracy by 10%.
- Applied dropout and batch normalization to reduce overfitting and improve model generalization by 10%.
- Enhanced precision and recall by 5–8% through confusion matrix analysis.

Howard Community College **Columbia, MD**
Physics and Computer Science Student Researcher | Undergraduate Research *Jan 2024 – Dec 2024*
- Worked as part of a 4-person research team led by Dr. Anna DeJong, developing Python algorithms with NumPy and Astropy to analyze 500+ stellar systems, achieving 95% accuracy in binary star identification.
- Contributed to published research findings in the Washington Double Star Catalog (WDS) and Journal of Double Star Observations (JDSO).
- Presented findings at the Maryland Collegiate STEM Conference (MCSC), sharing methodologies and results with regional academic peers.

Howard Community College **Columbia, MD**
Mathematics and Finance Faculty | Undergraduate Teaching *Sept 2024 – Present*
- Instructed over 70+ students in Linear Algebra, Calculus II/III, and Financial Accounting, focusing on multivariable calculus, vector spaces, and financial statement analysis.

PROJECTS

Club Management Platform - App Dev Hackathon 1st Place | Python, FastAPI, MongoDB, GridFS *GitHub*
- Developed a full-stack web application for my University's software contracting club to manage mentor-student relationships, track group goals, and advance collaborative competition through an interactive leaderboard system.
- Built a profile management system handling 100+ users with image uploads using React/TypeScript for frontend and MongoDB for efficient data storage.
- Designed core API endpoints with FastAPI, and an arcade-themed, mobile-responsive UI.

CPU-Based 3D Graphics Engine | C++, SFML, CMake, Linear Algebra *GitHub*
- Built a 3D rendering engine from scratch in C++, processing the entire graphics pipeline on CPU without hardware acceleration.
- Implemented rasterization with perspective-correct texture mapping, dynamic lighting, and a 3D camera system.
- Designed a SIMD-optimized math library, reducing transform calculations by 3x versus naive implementations.
- Optimized the pipeline to render 50k+ polygons at interactive frame rates without GPU support.

LEADERSHIP AND PERSONAL DEVELOPMENT

Howard P.R.I.D.E Program **Columbia, MD**
Lead Math Instructor *Jan 2024 – Present*
- Lead Instructor for Howard P.R.I.D.E, a social impact initiative supporting underrepresented students in mathematics by providing personalized tutoring, confidence-building workshops, and academic mentorship.
- Led weekly problem-solving sessions from Developmental Math, to College Algebra for 20+ students, improving participants' course grades and quantitative reasoning skills.