Abdulhafiz Muzyin

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EDUCATION

Georgia State University Perimeter College (GPA: 4.0/4.0) — Clarkston, GA
Associate of Science in Engineering — *Jan. 2024 – May 2026*

Relevant Coursework Computing Fundamentals for Engineers (MATLAB), Principle of Computer Science I (Python), Introduction to Engineering, Engineering Graphics and Design I and II, Calculus I and II, Multivariate Calculus for Engineers, Differential Equations, Principles of Physics I and II, Principles of Chemistry I.

Honors & Awards Dean Award Nominee (2024), Phi Theta Kappa (PTK) Honor Society, President's List (five semesters), CLACEC Annual Coding Competition Winner (2024), CLACEC Annual Boat Regatta Competition 2nd Place (2024).

TECHNICAL SKILLS

Languages: Python, MATLAB, TypeScript, C, SystemVerilog, Assembly
Frameworks: React.js, Node.js, FastAPI, Canvas API, JUnit, Flask
Developer Tools: Git, GitHub, Docker, Cloudflare, Jupyter Notebook, VS Code
Libraries: Pandas, NumPy, Matplotlib, XGBoost

TECHNICAL AND LEADERSHIP EXPERIENCES

Co-President – Clarkston Math Club — Aug. 2024 – Present
Georgia State University Perimeter College — *Clarkston, GA*

- Led executive meetings to plan events, coordinate logistics, and manage the club budget.
- Organized Jeopardy-style math events, a Transfer Panel featuring Perimeter alumni at MIT and Georgia Tech, and an annual coding competition with CLACEC, increasing active membership by 25% in one year.

Event Organizer – Clarkston Computing and Engineering Club — May 2024 – Present
Georgia State University Perimeter College — *Clarkston, GA*

- Planned events including the Annual Boat Regatta, robotics workshops, bridge building contests, and coding challenges, averaging 20 participants per event.
- Managed the club's event budget and logistics, contributing to the organization earning "Best Student Organization of the Year" in 2024.

Supplemental Instructor — Jun. 2024 – Aug. 2025
Georgia State University Perimeter College — *Clarkston, GA*

- Collaborated with two instructors to improve student success by developing weekly plans for Calculus I (MATH 2211) and Precalculus (MATH 1113).
- Delivered 150+ hours of office hours, assignment support, and review sessions tailored to diverse learning needs.

STEM Tutor — Jun. 2024 – May 2025
Georgia State University Perimeter College – Learning and Tutoring Center — *Decatur, GA*

- Provided 220+ hours of tutoring in mathematics, computer science, and engineering courses, focusing on conceptual understanding, problem-solving strategies, and exam preparation.
- Organized and led group study sessions for students enrolled in similar courses during midterm and final exam seasons.

PROJECTS

Medlo Digital Medical Record System *Python, TypeScript, BetterAuth, Git* — Jun. 2025 – Present

- Built the backend for the first version of a full-stack medical record platform and piloted the system in eight medical institutions in Ethiopia.
- Implemented authentication with BetterAuth in TypeScript to verify all users via FAYDA, Ethiopia's national identification number, and developed RESTful API endpoints with FastAPI for database-backed workflows.

Fabric Fingerprint *Python, TypeScript, Node.js, BetterAuth, Git* — Sep. 2025 – Nov. 2025

- Worked with a team of four to develop Fabric Fingerprint, a sourcing platform connecting designers with verified, sustainable fabric suppliers.
- Built a functional demo app showcasing designer to fabric matching, supplier verification, and automatic language translation and presented at the 2025 Perimeter College Innovation Challenge, demonstrating sustainability and efficiency improvements in fashion supply chains.

RISC-V 32-bit Pipelined Processor Design *SystemVerilog, Assembly, Git*   Mar. 2025 – May 2025

- Implemented a 32-bit RISC-V processor in System Verilog with a five-stage pipelined datapath (fetch, decode, execute, memory, writeback), validated using the RISC-V instruction set architecture (ISA) in Assembly.
- Integrated hazard detection, forwarding logic, and a two-way set-associative cache with least-recently-used (LRU) replacement policy.

RESEARCH EXPERIENCES

Mixed-Precision Matrix Multiplication Acceleration on FPGA   Aug. 2025 – Present
Georgia State University Perimeter College (Under Supervision of Dr. Andrew Kim)   *Dunwoody, GA*

- Researching FPGA acceleration for matrix multiplication, a critical kernel in large-scale machine learning and scientific computing workloads on an AMD Spartan-7 FPGA Urbana board.
- Exploring mixed-precision matrix operations by leveraging lower-precision arithmetic to increase throughput while maintaining high accuracy.

Data-Driven Evaluation of Campus Study Space Quality   Sep. 2025 – Dec. 2025
Georgia State University Perimeter College (Under Supervision of Dr. John Weber)   *Clarkston, GA*

- Designed and implemented a grid-based data collection system to measure illuminance and sound levels across multiple campus study spaces.
- Collected and analyzed 300+ data points and used multivariable calculus and contour plots to visualize spatial trends and recommend optimal study locations.

Indoor Navigation Systems for Multi-Floor Campus Buildings   May 2025 – Nov. 2025
Georgia State University Perimeter Collge – Honors College Research Showcase   *Clarkston, GA*

- Conducted research on improving indoor navigation within campus buildings using digital floor plans and spatial layout data.
- Investigated algorithms for real-time positioning and path optimization and presented findings at the Honors Research Showcase.

VOLUNTEER EXPERIENCES

MESA Peer Tutor   Aug. 2025 – Present
Math Engineering Science Achievement (MESA) Center, Georgia State University Perimeter College   *Clarkston, GA*

- Completed 120+ volunteer hours supporting STEM students by providing academic assistance focused on conceptual understanding, problem-solving strategies, and exam preparation.
- Fostered a collaborative learning environment and organized and led small to large group study and review sessions.

Egnaw Le Egnaw (Us for Us) Foundation – Co-Founder   Mar. 2023 – Present
Non-Profit Organization   *Addis Ababa, Ethiopia*

- Raised $2800+ through GoFundMe and local bank donations, renovated four classrooms at Wesherbe Elementary School, and delivered academic textbooks to Wesherbe High School (160) and Holeta High School (112) for the 2025–26 academic year.
- Led clothing drives from Addis Ababa to multiple regions in Ethiopia to support children affected by the recent civil war in the northern region.

PROFESSIONAL MEMBERSHIPS

National Society of Black Engineers (NSBE)   Mar. 2025 – Present
Member

- Selected as one of 12 students to represent Georgia State University Perimeter College at the NSBE 2025 Annual Convention to participate at the Academic Quiz Bowl Competition and connect with industry professionals.