

Taha Sabir

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EDUCATION

Gettysburg College

Bachelor of Science in Computer Science and Mathematics

Gettysburg, PA

Expected May 2027

- **Department GPA:** 3.93/4.00
- **Relevant Coursework:** Principles of Operating Systems, Data Structures & Algorithms, Advanced Data Science, Machine Learning & Artificial Intelligence, Abstract Mathematics, Linear Algebra, Multivariable Calculus
- **Spoken Languages:** English (Native), French (Native), Arabic (Native)

EXPERIENCE

Full Stack Software Engineering Intern

May 2024 – Jul 2024

Brainlyne.ai

Washington, DC

- Collaborated in a 5-person Agile team to design, implement, and ship four production features, contributing across backend APIs and frontend state management.
- Improved the class onboarding pipeline to increase sign-up completion by 28%.
- Developed an SAT prep progress tracker using GraphQL, raising module completion rates by 12%.
- Deployed backend services and microservices on AWS (EC2, S3) using Docker and GitHub Actions, reducing deployment time by 15% and improving CI/CD reliability.

Embedded Software Engineering Intern

May 2025 – Jul 2025

Digital Technology Summer Fellowship

Gettysburg, PA

- Built a modular guitar stand robot that auto-tunes six strings in under 5 seconds.
- Developed a real-time FFT signal-processing pipeline in C++, enabling pitch detection with 0.5 Hz accuracy.
- Optimized system performance to achieve <50 ms motor response and <1 cent tuning error.
- Developed a PID control system integrating amplifiers, motor drivers, and piezo contact microphones.

Computer Science Teaching Assistant

Feb 2024 – May 2024

Gettysburg College Computer Science Department

Gettysburg, PA

- Led counseling sessions for 80+ students, reducing professor help requests by 30%.
- Resolved 300+ coding questions in Java and Python, strengthening student understanding of OOP.

PROJECTS

Innovation & Creativity Lab AI Assistant | Spring Boot, LangChain, Whisper

Sep 2025 – Present

- Led the end-to-end development of a locally hosted AI voice assistant used by 50+ students weekly.
- Built a Next.js interface and a Spring Boot backend using LangChain, Whisper, and the Chroma Java clients.
- Integrated a 100+ item lab knowledge base and exposed REST endpoints for real-time vector lookups.

SwiftApply | React, Spring Boot, MySQL, JWT

Feb 2025 – Apr 2025

- Built a Hackathon-winning AI-driven agentic job application platform, cutting application time by 90%.
- Integrated Gemini web-browsing Agent to enable autonomous web navigation across 100+ job portals.
- Built an application analysis tool to evaluate submissions and generate actionable improvement feedback.

AI Line Tracking Robot | Python, OpenCV, Raspberry Pi, PiCar-X SDK

Jan 2025 – May 2025

- Implemented motor calibration and optical flow algorithms on the SunFounder PiCar-X using Python and OpenCV, achieving 95% servo alignment accuracy and smooth motion tracking.
- Integrated PiCar-X SDK, grayscale sensors, and Vilib camera APIs to test and debug navigation routines.

TECHNICAL SKILLS

Languages: Java, Python, C++, JavaScript/TypeScript, SQL

Frameworks: Spring Boot, React, Next.js, Fast API, Node.js, Tailwind

Developer Tools: Git, Docker, GitHub Actions, AWS (EC2, S3), GraphQL, REST, JWT/Auth, Linux

Libraries: Pandas, NumPy, react-router, LangChain, OpenCV, Whisper, Chroma, Matplotlib