

# Taha Sabir

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## EDUCATION

### Gettysburg College

B.S. in Computer Science, B.S in Mathematics

Gettysburg, Pa

Expected Graduation, May 2027

- o **Department GPA:** 3.83/4.00
- o **Related Coursework:** Data Structures and Algorithms, Data Science Programming, Introduction to Artificial Intelligence, Principles of Operating Systems, Abstract Mathematics, Linear Algebra, Multivariable Calculus

## SKILLS

**Programming:** Java, Python, C++, C, JavaScript, HTML/CSS, SQL, MATLAB, Node.js, React.js, Spring Boot, FastAPI, Tailwind

**Tools:** MySQL, Agile, PostgreSQL, Firebase, Git, GitHub, Eclipse, Arduino IDE, Linux, Jupyter Notebook, Fusion360, AWS, Ubuntu

## EXPERIENCE

### Full Stack Software Engineering Intern

Washington, DC

Wahaj.ai

Sep 2024 – present

- Redesigned and streamlined the **user signup and onboarding flow**, improving conversion rates by **28%**
- Developed **10+ full-stack features** in collaboration with a **5-person engineering** team using React.js, Spring Boot, and PostgreSQL, enhancing core functionality and **improving usability by 20%** and increased **client adoption by 35%**.
- **Deployed microservices on AWS** with Docker and GitHub Actions, cutting deployment time by 40%.
- Optimized database queries and APIs, **reducing average response times by 35%**, enabling the system to handle 2x more concurrent users, and improving application reliability during peak traffic loads.

### Embedded Software Engineering Intern

Gettysburg, Pa

Digital Technology Summer Fellowship

May 2025 – Jul 2025

- Designed an **electromechanical guitar stand** that auto-tunes six strings, reducing tuning time by **90%**
- Authored and **published** paper on the project, adopted as a **template** for engineering projects involving **200+ students**
- Built real-time signal processing pipeline **C/C++** with **FFT** enabling **polyphonic** pitch detection at **±0.5 Hz accuracy**
- Developed **PID control system** with custom analog amplifier, motor drivers and piezo contact microphones achieving <50 ms motor response time and tuning precision within the **JND threshold** (<1 cent error).

### Computer Science Teaching Assistant

Gettysburg, Pa

Gettysburg College Computer Science Department

Feb 2024 – May 2024

- Led counseling sessions for **80+ students** resulting in students requesting **30% less assistance** from the professor.
- Resolved **300+ individual coding questions** in **Java** and **Python**, improving student problem-solving efficiency

## PROJECTS

### SwiftApply

Newark, De

Team lead

March 2025 – Apr 2025

- Built an **AI-powered web app** that automated job applications, integrating React.js, Spring Boot/FastAPI, and MySQL, **reducing application time by 70%**.
- Led frontend with **Shadcn UI/Tailwind** and coordinated a 4-person team to deliver an MVP in 4 weeks.
- Integrated **Gemini 2.5 APIs** to enable autonomous web navigation and automated browsing across **100+ job portals**

### AI line tracking robot

Gettysburg, Pa

Team Member

Feb 2025 – May 2025

- Implemented motor calibration and **optical flow algorithms** on the SunFounder PiCar-X with **Python, OpenCV**, and Raspberry Pi, 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, improving line-following reliability by **40%** and documenting processes for team scalability.

## ACTIVITIES AND LEADERSHIP

### Residential Education Staff - House Leader of International House

Gettysburg, Pa

- Supervised more than **30 residents** from **20+ countries**

Aug 2025 – Present

### Association of computing machinery - Outreach chair

Gettysburg, Pa

- Organized **5+ ACM student events** with more than **50 participants**
- Increased event participation by **30%** from previous years

May 2025 – Present

### Gettysburg College Rugby Team - Fundraising Chair/ Social Share

Gettysburg, Pa

- Raised more than **\$5000** in the 2024 calendar year
- Hosted **8 Events** for the 2024-2025 season with **350 participants**

Feb 2023 – Present