Saumya Brahmbhatt

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Education

University of Maryland, Baltimore County   **Aug. 2025 – May 2027 (Expected)**
Bachelor of Science in Computer Science – Specialization AI/ML, Honors College   *Baltimore, MD*

Harford Community College   **Aug. 2023 – May 2025**
Associate of Applied Science in Computer Science with High Honors   *Bel Air, MD*
GPA: 4.00/4.00   Top 10% – National Board Exam, India

Relevant Coursework

- Data Structures and Algorithms
- Database Management
- Artificial Intelligence
- Machine Learning
- API Usage
- Object-Oriented Programming

Experience

University of Maryland, Baltimore County   **Baltimore, MD**
Teaching Fellow–Social / Ethnic Issues in IT   *Sept 2025 – Present*
- Assist faculty in course delivery, grading, and discussion facilitation for undergraduate IT students.
- Lead conversations on diversity, equity, and ethical issues in technology, fostering inclusive learning.
- Support student research projects and assignments, enhancing critical thinking and analytical skills.
- Collaborate with faculty to develop inclusive course materials and classroom activities.

Harford Community College   **Bel Air, MD**
AI/ML Curriculum Development Intern   *March 2025 – Present*
- Collaborated with faculty to design a new AI/ML track for credit and non-credit pathways, ensuring alignment with Maryland Higher Education Commission (MHEC) standards and academic transferability.
- Co-developed course structures, learning outcomes, and skill modules (Python, neural networks, ML ethics) to meet industry demands.
- Led curriculum development via Git and researched 15+ AI/ML programs for a Maryland state proposal.

Teaching Assistant   *April 2024 – May 2025*
- Assisted 200+ students in programming C/C++, Java, Physics, Chemistry, and Math.
- Supported the Learning Center and promoted CRLA Certification Training.

Projects

BizChat – LLM-Powered Business Plan Assistant | *React, Next.js, Firebase, Whisper-1*   *Sept 2025 – Present*
- Built a web app helping small business owners create business plans regardless of technical skill, informed by **4** workshops and **15** interviews.
- Applied HCI-driven design to improve accessibility **40%** and reduce drafting time **60%**.
- Integrated GPT-4 Turbo and Whisper-1 for real-time, section-level business plan generation (< **2s latency**).

ScholarSnap – AI-Powered Paper Summarizer | *Python, Streamlit, Hugging Face, OCR, NLP*   *May 2025 – Present*
- Developed an AI-powered academic paper summarization platform using Tesseract OCR and transformer models (T5, BART), reducing manual reading time by up to **80%**.
- Optimized backend processing pipeline to improve summarization speed by **60%**, enabling real-time responsiveness.

Numerical and Experimental Study of 1D Falling Disks with Air Resistance |*MATLAB, Data Analysis April 2025*
- Presented original research on 1D motion of falling disks at the 10th Annual Maryland Collegiate STEM Conference, highlighting skills in experimental design and MATLAB-based simulation.
- Engineered automated PASCO Capstone system, capturing time-of-flight data with **99% accuracy** over **100+** trials, reducing timing errors by **15%**.
- Built MATLAB simulations using `ode45` to model drag forces, achieving under **5% computational error** and improving prediction accuracy by **20%**.

Sliding Puzzle Game | *C++, Windows API, OOP, Memory Management*   *Nov 2024*
- Built an NxM sliding tile puzzle in C++ with real-time color transitions and animations using Windows API.
- Demonstrated advanced object-oriented design, dynamic memory management, and pointer-based board manipulation.

Technical Skills

Languages: Python, Java, C/C++, HTML/CSS, JavaScript, SQL
Developer Tools: VS Code, MATLAB, Jupyter Notebook
Technologies/Frameworks: Git, GitHub, Hugging Face, Streamlit, Tesseract OCR, NLP, Docker

Leadership / Extracurricular

Honors Council   **Fall 2024 – Spring 2025**
Vice President   *Harford Community College*
- Led 5+ initiatives, boosting student engagement in academics by 20% in two semesters.
- Managed 10+ council members and ran weekly meetings to oversee progress in essential parts of the council.