Aatmann BC

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EDUCATION

Bachelor of Science in Computer Science.   **CGPA:** 3.95   **Projected Graduation:** May '25
Howard University, Washington, DC

COURSEWORK AND TECHNICAL SKILLS

Courses: Software Engineering, Computer Networks, Mobile App Dev, Applied Data Science, Computer Organization, Operating Systems (C), Theory of Computation, Data Structures, Algorithms, UNIX (Linux Lab), Linear Algebra, Discrete Structures

Technical Skills: Python (Most Proficient), Kotlin, Java, C, JavaScript, .NET, SQL, R, HTML & CSS, MATLAB, Pandas, NumPy, Git

Organizations: Engineers Without Borders, Google Developer Student Club, Howard University Math Department

Mentorship | Hackathon: Adobe, DELL Technologies, NREL, Codepath | Lionhacks NY 23', BisonBytes 24'

WORK EXPERIENCES

Software Engineering Intern / Researcher | *National Renewable Energy Laboratory*   May '23 – Aug '24

❖ Spearheaded the expansion of the building attributes dataset for the City of Chattanooga, utilizing **OpenStreetMap API** and Python libraries, reducing building data management time by **40%** and cutting operational costs by the same margin.
❖ Modeled the effects of tree canopy coverage and urban heat islands on building energy consumption, leading to a projected **15%** decrease in energy emissions through green infrastructure enhancements.
❖ Conducted a **comprehensive analysis of solar energy potential**, resulting in actionable recommendations that promoted sustainability and **informed city policies**.

Data Analyst | *Goldman Sachs Market Madness*   Jan '24 – Apr '24

❖ **Led a 5-person** data analysis **team**, developing an innovative **marketing proposal for Nike's** collaboration with Apple Music, projected to generate **$400 million** in additional revenue.
❖ Leveraged **Scikit-learn** to analyze **10** years of market collaboration **data**, identifying key patterns that improved decision-making by **30%** in the campaign strategy.
❖ Delivered a comprehensive data-driven report that contributed to securing second place in the competition's first round.

Lead Tutor | *Khan Academy x Howard University*   Feb '23 – Current

❖ Selected as **1 of 7 top tutors out of 30+** candidates to **lead College Algebra classes** for over **30** high school students, consistently improving test scores by **15%** on average.
❖ **Implemented custom lesson** plans and facilitated weekly office hours, achieving a **100%** satisfaction rate among students through clear explanations and dedicated support.

KEY PROJECTS

GeoBuildInfo | Discover Building Information by Coordinates   May'23 – Aug '24

❖ Designed a **geospatial data solution** using **Geopy, Pandas, NumPy**, and OpenStreetMap API to extract detailed building information based on latitude and longitude from **5,000+** data points.
❖ Implemented a **Unique Building Identifier (UBID)** system that decreased **data merging** time by **70%**, optimizing building management processes for large datasets.
❖ Enabled CSV output and seamless integration with **3+** visualization tools, providing flexible, **real-time decision-making** support for stakeholders.

Flixster | Personal movies & TV shows recommendation app   Aug '23 – Dec '23

❖ Developed a **full-stack** app in **Kotlin** with a **Spring Boot backend** and **RESTful API integration**, serving over **50,000 titles** via the **Movie Database API**.
❖ Built an intuitive **UI** with **infinite scrolling**, detailed descriptions, and posters, leading to a **30% increase in user retention**.
❖ Deployed using **Docker** on **AWS EC2**, reducing load times by **20%** through optimized data retrieval and **caching**.

AWARDS AND ACHIEVEMENTS

❖ **HU Capstone, Howard University**: Awarded a **merit scholarship** totaling over **$100,000**.
❖ **Amazon AWS Deep racer (Third Place)**: Showcased **machine learning** and **autonomous systems** expertise.
❖ **School House Captain**: **Led 500+ students** while organizing activities, **managing resources** and communication.