Akshaya Ajith

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Security Clearance: Secret (Pending Adjudication, expected Oct 2025)

Education

Johns Hopkins University **Expected May 2027**
B.S. Computer Science GPA: 3.9 *Baltimore, MD*

Relevant Coursework

- Machine Learning
- Computer Systems Fundamentals
- Security & Privacy in Computing
- Data Structures
- Intermediate Programming in C/C++
- Discrete Mathematics
- Linear Algebra
- Calculus III

Experience

Skydda.ai **Jul 2025 – Sept 2025**
Software Engineering Intern *Remote*

- Designed & shipped a production textbfModel Context Protocol (MCP) Server integrating REST APIs with **agentic AI**, reducing manual testing by 80–90%.
- Replaced manual testing with production AI workflows with data queries via conversational interfaces.
- Deployed **AWS- and Docker-based** backend architecture capable of handling high-volume queries in production, ensuring reliability and scalability.
- Collaborated in an Agile team with Git-based workflows, code reviews, and pair programming to rapidly ship agentic AI cybersecurity features.

Entropy for Energy (S4E) Lab, Johns Hopkins **Oct 2023 – Present**
Research Engineer (AI & Data Science) *Baltimore, MD*

- Led a multi-semester project developing **ML models** (Random Forest, GNNs) in PyTorch & scikit-learn, achieving +30% predictive accuracy and -85% MAE.
- Engineered robust Python/C++ **ETL pipelines** for JSON datasets, automating preprocessing and feature engineering.
- Productionized research code into reusable, reproducible tools with validation + debugging frameworks ensuring data integrity across experiments.
- Communicated technical results through visualizations (matplotlib, seaborn) for both technical and non-technical audiences.

Department of Computer Science, Johns Hopkins **Aug 2025 – Present**
Course Assistant, Computer Systems Fundamentals *Baltimore, MD*

- Supported 100+ students in debugging and optimizing **C/C++/assembly code** with **gdb and valgrind**.
- Mentored students in systems programming, object-oriented design, and best coding practices.

Projects

Network Anomaly Detector | Python, C++, scikit-learn, pandas, NumPy, Wireshark, Linux

- Built a Python-based anomaly detection pipeline analyzing network traffic with **Wireshark** + ML models.
- Applied packet analysis and statistical modeling to detect deviations in network, strengthening cybersecurity workflows.
- Applied **Isolation Forest and supervised ML models**, improving threat detection accuracy by 35%.
- Integrated feature engineering, validation, and verification workflows for **secure, reliable system performance**.
- Delivered a production prototype for **incident response and vulnerability alerting**, designed to scale into SOC-like environments.

Hopkins Student Wind Energy Team – Siting Team | Python, Furow, ArcGIS

- Automated **GIS workflows** (Furow, ArcGIS) to optimize wind farm layouts, enabling faster siting analysis.
- Built Python pipelines & seaborn visualizations to present results to both technical and non-technical audiences.
- Worked in a cross-functional team to integrate geospatial and technical considerations into engineering deliverables.

Technical Skills

Languages: Python, Go, C, C++, Java, Bash (daily AI-assisted coding with strong review of outputs)
Web Tools: JavaScript, ReactJS, HTML/CSS, RESTful APIs
Cloud & Infra: AWS, Docker, Git, Linux, Microsoft Office, Google Workspace
Security Tools: Wireshark, STRIDE Threat Modeling, *familiarity with Nessus/Qualys scanners*
AI & Data Tools: SQL, ETL Pipelines, PyTorch, scikit-learn, Pandas, NumPy, Jupyter, matplotlib, seaborn