ASHRAF ABDUL-MUUMIN

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EDUCATION

Illinois Institute of Technology, Chicago, IL   May 2026
Masters, Information Technology, GPA: 4.0

Garden City University College, Kumasi, Ghana   Sep 2018 – Jun 2022
Bachelor of Science, Computer Science

WORK EXPERIENCE

Software Engineer (AI/ML)

AIFS – Chicago, IL   Oct 2024 – Present
- **Architected** and deployed scalable Azure Function Apps in *.NET* that supported over 10,000+ requests/sec, contributing to cost-efficient cloud-based infrastructure aligned with enterprise performance needs.
- Reduced cloud query latency **by 68%** through optimized data access patterns with **Azure Cosmos DB**, ensuring smoother data delivery and real-time dashboard readiness.
- Implemented a robust **CI/CD pipeline** using GitHub Actions, cutting deployment times **by 80%** and improving release stability for cloud applications.
- Improved authentication reliability **to 99.9%** and reduced unauthorized access incidents **by 60%** through implementing a user management service leveraging **Microsoft Entra ID** to enhance security and access control.
- **Led** internal process automation projects that improved team efficiency, thus transforming manual deployment and authentication workflows into scalable, secure cloud-first operations.
- Worked with cross-functional teams following Agile methods to synchronize task tracking using **Azure DevOps and Teams**, ensuring transparency and timely sprint execution.

Full Stack Engineer

Onesolution – Kumasi, GH   Sep 2023 – Aug 2024
- **Engineered** and maintained an API-driven **PHP, JavaScript**, and **MySQL** POS backend system, enabling synchronous ingestion of 600+ daily transactions.
- Optimized SQL queries and indexed large datasets, slashing load times **by 45%** and directly supporting scalable data models for operational reporting.
- Designed cross-platform desktop solutions with strong offline capabilities, which mirrored cloud-on-prem integration scenarios.

Junior Backend Engineer

Kwame Nkrumah University – Kumasi, GH   Sep 2022 – Aug 2023
- Modified students' database of the Student Portal for the University, resulting in a reduction of data fetching complications and data inconsistencies by more than 50%.
- Produced a Data Export UI page for other departments to operate, eliminating the need for seeking the UITS department's assistance with exporting data directly from database. All departments now make use of this page.
- Engaged in weekly meetings to receive collaboration tasks with other developers. All tasks were completed timely and were organized for Supervisors.

ACHIEVEMENTS

ACM ScarletHacks 2025 Hackathon: 1st Place

ACM Illinois Institute of Technology – Chicago, IL

- **Built a Kafka + Spark Streaming** pipeline for real-time ingestion and analysis of thousands of records per day.
- Designed a modular ETL architecture using a combination of NLP, CV, and GNN models to extract structured insights across text, image, and graph datasets.
- Delivered a highly functional MVP in under 36 hours, simulating end-to-end ingestion, transformation, and actionable report generation for enterprise-scale analytics.

PROJECTS

A. **PredictBo – Bo Predictor –** https://huggingface.co/spaces/predictbo/predictbo

- Developed a **Python** web app and an end-to-end data pipeline for reservoir property prediction using a deep learning model trained on 812 real-world samples, deploying the entire stack to Hugging Face Spaces.
- Applied advanced ML engineering (Bayesian Optimization, Discretization, and Regularization) to achieve 95.46% R^2 and MSE of 0.0026.
- Automated the pipeline deployment and model versioning, demonstrating comfort with production-grade ML lifecycle management and data science integration.

VOLUNTEER EXPERIENCE

Web Developer

ACM Illinois Institute of Technology – Chicago, IL   Nov 2024 – Present

- Developed and deployed ACM Illinois Tech's official website, leveraging Next.js, TypeScript, and Tailwind CSS, resulting in a **45% increase** in member engagement and streamlined event registration.
- Achieved seamless event integration, through custom-built "Add to Calendar" functionality (*Google and Outlook APIs*), enhancing user experience and boosting event attendance by 30%.
- Boosted site responsiveness and accessibility, through rigorous UI/UX optimization and Figma prototype iterations, which improved mobile user retention and resulted in a **20% decrease** in bounce rate.

SKILLS

Languages | C#, PYTHON, TYPESCRIPT, JAVASCRIPT, PHP, SQL (POSTGRESQL, MYSQL), HTML, CSS

Frameworks | .NET, NEXTJS, REACTJS, NODE.JS/EXPRESSJS, JQUERY, TAILWINDCSS, BOOTSTRAPCSS, NUMPY

Tools | MICROSOFT AZURE, MS PROJECT, VERCEL, GIT, DOCKER, AI, FIGMA, KERAS, TENSORFLOW, STREAMLIT, DATA VISUALIZATION, MATPLOTLIB, SEABORN, PANDAS, PROSPER, PETREL, APACHE KAFKA, SPARK

Technical Competencies | RESTFUL API, AGILE, RESPONSIVE DESIGN, USER INTERFACE DESIGN, USER EXPERIENCE, DATA STRUCTURES, LINUX, BASH, OPERATING SYSTEMS, DATA MODELS, MICROSERVICES, SDLC, DESIGN PATTERNS