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

- **Achieved a 35%** improvement in AI-driven response accuracy and reduced processing latency by 40% through enhancing message processing capabilities using C#.
- Reduced query response time from 250ms to 80ms and scaled efficiently to handle 300K+ messages/month by optimizing data storage and retrieval through the implementation of **Azure Cosmos DB**.
- 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.
- **Cut** average deployment times from 15 minutes to under 3 minutes and reduced manual errors by 80% by automating **Azure Function App** deployment workflows using *GitHub Actions*, enabling seamless **CI/CD operations**.
- Ensured timely delivery of development tasks and alignment with team goals by **rigorously** following *Agile methodologies* through daily stand-ups, spring planning, and retrospectives, consistently completing and updating assigned work items.
- **Increased** request processing efficiency by 50% and **reduced cloud costs by 25%** by deploying a highly scalable HTTP Azure Function App using .NET and Azure, supporting over 10,000 requests per second.

Full Stack Engineer

Onesolution – Kumasi, GH   Sep 2023 – Aug 2024

- **Led** a team of 4 and developed the **PHP desktop application version** of the Point of Sales web app, ensuring consistent user experience across platforms. Adoption rate increased to 63% due to improved offline capabilities and enhanced UI responsiveness.
- **Reduced loading times** by rewriting SQL queries and database indexing, reducing query **execution time by 45%** and improving checkout **processing speeds by 37%**, leading to a smoother end-user experience.
- Integrated backend services using **Express.js**, establishing reliable real-time synchronization mechanisms that processed over roughly **600 API requests** daily to ensure sales and other information reflected instantly.

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

1st Place ACM ScarletHacks 2025 Hackathon

ACM Illinois Institute of Technology – Chicago, IL

- **Guided and led** a team of 2 to win "*Best use of AI*" application in ACM's ScarletHacks 2025 Hackathon.
- Engineered a real-time data ingestion pipeline with **Apache Kafka and Spark Streaming**, enabling automated processing of *thousands of records per day*, which powered near-real-time decision support for enterprise operations.
- Designed and built a scalable platform that integrates text, image, and structured data analysis using state-of-the-art deep learning architectures (transformers for NLP, CNNs for visual data, and graph neural networks for relational insights).

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.

PROJECTS

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

- Developed a web app to estimate Bo using an end-to-end Deep Neural Network pipeline trained on 812 data point observations utilizing features including Bubble Point Pressure, Temperature, Solution Gas-Oil Ratio, and API Gravity.
- Achieved an MSE of 0.0026, R^2 of 95.46%, and MAE of 0.0347 on the testing set.
- Skills used were Discretization, Regularization, Adam Optimization, Bayesian Optimization, Deployment, Pipeline Automation, Version Control and Cross-Disciplinary Collaboration.

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

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