

Abdul Aziz Mohammed

abdul.aziz.mohammed@outlook.com | 737-336-1822 | LinkedIn: [linkedin.com/in/axm0](https://www.linkedin.com/in/axm0) | GitHub: github.com/axm0

EDUCATION

The University of Texas at Dallas, Richardson, TX

Expected Graduation May 2025

Bachelor of Science, Computer Science

GPA: 3.96/4.00

Awards: Second place at FinHACK Hackathon Spring 2023

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C++, SQL, R, YAML, JSON

Tools: Amazon Web Services, Google Cloud Platform, RedHat Linux, Docker, Git, PostgreSQL, React, Express.js, PySpark, Keras, Tensorflow, Pandas, NumPy, Matplotlib, Jira, Confluence, Bitbucket, UrbanCode Deploy, Cloudbees (Jenkins)

Skills: Machine Learning, Automation, Natural Language Processing (NLP), Predictive Modeling, Data Pipeline Development, Cloud Deployment Pipeline Development, Data Visualization and Management, Full-stack Development.

RELEVANT EXPERIENCE

AMZ Infotech, *Software Engineer Co-Op*, Remote

September 2022 - Present

- Developed scalable analytics solutions using Apache Spark (PySpark) and AWS services, such as S3, RDS, Redshift, and Lake Formation, for data warehousing and analytics.
- Authored CloudFormation templates and Jenkinsfiles stored in Bitbucket for automated provisioning and deployment of AWS resources, improving infrastructure setup and CI/CD processes.
- Implemented real-time ingestion and processing to reduce data latency, integrating RESTful APIs for enhanced analytics.
- Designed and deployed scalable data pipelines within Docker environments for ML model development, enabling efficient data flow and predictive analytics.
- Supported AWS cloud migration projects, optimizing infrastructure for performance, scalability, and security.
- Helped implement a novel Tableau reporting enhancement through the implementation of an automated keyword extraction system utilizing an LLM, improving report management efficiency.
- Worked with Red team to conducted security audits on Docker and Nginx, improving container security.

PROJECTS & LEADERSHIP EXPERIENCE

ML Network Intrusion Detection Research Project, *Research Assistant*

January 2024 - Present

- Contributing member of Professor Brian Wescott's team, actively involved in researching and developing machine learning algorithms for network intrusion detection.
- Developed a comprehensive understanding of machine learning concepts, including the machine learning pipeline, dataset preparation, model learning, tuning, and evaluation, through active participation in an introductory project focused on network traffic classification.

Flood Prediction Model for Baltimore County Maryland, *Independent Project*

March 2023

GitHub Repository: github.com/axm0/flood-risk-prediction-for-property-owners

- Leveraged geospatial analysis and environmental data to develop a predictive model for assessing flood risks on properties.
- Utilized Python libraries (Geopandas, Rasterio, CatBoost) for spatial analysis and machine learning.
- Integrated and analyzed diverse datasets, including property assessments and flood probability data.
- Implemented advanced statistical methods to enhance the accuracy of flood risk assessments.
- Employed data visualization techniques for effective communication of results.

DynaFit, *Class Project*

November 2023

GitHub Repository: github.com/axm0/dynafit

- Led the development of DynaFit, a full-stack fitness application focusing on user engagement and health optimization.
- Engineered a robust backend using Express.js and frontend using React, incorporating AWS services for scalable infrastructure.
- Implemented advanced features like dynamic workout and diet generators using machine learning and AI.
- Developed user authentication and profile management modules to enhance security and personalization.

Artificial Intelligence Society at UT Dallas, *Special Projects Officer*

January 2023 – Present