Mohammad Aliyawar Khan

+1 438 787 0249 | mohammadaliyawar.khan@mail.concordia.ca | linkedin.com/in/md-aliyawar-khan

Education

Concordia University, Montreal — Quebec, Canada
Master of Applied Computer Science — *Sep. 2024 - Present*

Jamia Millia Islamia, Delhi — New Delhi, India
Post Graduate Diploma in Computer Application — *Sept. 2022 - June 2023*

Aligarh Muslim University,Aligarh — Uttar Pradesh, India
Bachelor of Science (Hons.) in Mathematics, Minor in Statistics and Physics — *July 2019 - Aug 2022*

Experience

Software Engineer Intern — June 2023 - December 2023
NIMACT — *GHAZIPUR, UP, India*

- Completed advanced software development and web development technology training, including computer programming, design, and testing approaches, and displayed proficiency in HTML, CSS, JavaScript, and C++
- Collaborated with fellow interns to build optimal database systems for analyzing and interpreting huge datasets, using coding and machine learning techniques to better data analysis and use data-centric approaches.
- Collaborated effectively with cross-functional teams, integrating data analysis to create informative reports, dashboards, and visualizations for data-tight communication

Projects

Elasticsearch: A Distributed Systems Perspective | *Elasticsearch, Docker, Python*

- Evaluated Elasticsearch's distributed systems features, including sharding, fault tolerance, and distributed transactions, to assess scalability and performance.
- Designed experiments to optimize query performance, achieving a 30% improvement in aggregation query response times by increasing primary shards.
- Simulated node failures to test fault tolerance and ensure 100% data availability with replica shards during downtime.
- Utilized optimistic concurrency control to analyze conflict resolution in distributed transactions.
- Processed and analyzed 9 GB of data from the Amazon Reviews 2023 dataset, leveraging Elasticsearch for big data analytics and performance benchmarking.

DeepMed Detection - Medical Image Analysis | *TensorFlow, PyTorch*

- Led the development of advanced deep learning models for medical image interpretation.
- Achieved high precision and recall rates in disease detection algorithms.
- Implemented image segmentation techniques to ensure accurate structure recognition, utilizing for scalable processing.

Fraud Detection System Using Machine Learning and Flask | *Python, Flask, Heroku, , GridSearchCV, SMOTE*

- Developed a machine learning system using RandomForest for detecting fraudulent transactions.
- Preprocessed transaction data, handled class imbalance with SMOTE, and performed hyperparameter tuning with GridSearchCV.
- Deployed the model using Flask API for real-time fraud classification and integrated with Heroku for cloud deployment.

CODIS: A website for Coding Society | *React, Node.js*

- Developed a platform dedicated to coding enthusiasts using React for building user interfaces.
- Designed and implemented various pages including home, user registration, and contact forms to ensure an intuitive and visually appealing user experience.
- Developed a user-friendly contact form to facilitate communication between users and the CODIS team.

Technical Skills

Languages: C, C++, Python, JavaScript, HTML/CSS, LaTeX, MySQL (Postgres), Java,
Libraries and Frameworks: Hadoop, TensorFlow, PyTorch, Flask, MERN, NumPy, Pandas, Matplotlib, Scikit-Learn
Data Visualization: Tableau, Power BI, Seaborn
Developer Tools: Git, Github, Docker, Jupyter Notebook, VS Code, Visual Studio, PyCharm, Eclipse