

Md Abu Sayed Khan Faisal

Sydney, NSW, Australia | saeed.khan.sk646@gmail.com | +61 451933591 | yourwebsite.com

linkedin.com/in/md-abu-sayed-khan-faisal-30bb87239 | github.com/faisalkhan94

orcid.org/0009-0002-1525-5252

Summary

I'm passionate about building AI-driven solutions to real-world problems. As a Computer Science graduate with a Master's degree specializing in **Machine Learning** and **Big Data**, I bring strong programming skills and hands-on experience in developing intelligent, data-driven systems. I'm eager to contribute to impactful projects in AI, data science, and software engineering. Let's connect and explore opportunities to collaborate on innovative tech solutions.

Quick Guide

- **Core Strengths:** Machine Learning, Deep Learning, Computer Vision, Big Data Analytics, and AI Reliability (GitOps for ML).
- **Research Interests:** AI for Renewable Energy Forecasting, Autonomous Systems, and Reliable AI Deployment using MLOps & GitOps principles.
- **Practical Skills:** Python, TensorFlow, PyTorch, Scikit-learn, Spark, Docker, Kubernetes, Argo CD, GitHub Actions, Google Cloud Platform.
- **Academic Highlights:** Master of Computer Science (Machine Learning & Big Data) – University of Wollongong | Distinction.
- **Research Experience:** Led projects on AI-driven energy prediction, GitOps-based ML pipelines, and autonomous navigation using computer vision.
- **Collaboration Goal:** Open to industry roles (AI/ML Engineer, Data Scientist) and research opportunities (RA/PhD) focusing on sustainable AI and automation.
- **Portfolio & Research Profile:** Explore projects and research at github.com/faisalkhan94 | orcid.org/0009-0002-1525-5252

Education

University of Wollongong, Australia - Master of Computer Science (Machine Learning & Big Data) July 2023 – July 2025

- **Grade:** Distinction (View Credential)
- **Coursework:** Machine Learning, Big Data Analytics, Computer Vision, AI in Cybersecurity, Research Methodology .

Southeast University, Bangladesh - Bachelor of Science in Computer Science and Engineering October 2015 – March 2020

- **Grade:** First Class Honours (View Credential)
- **Coursework:** Data Structures and Algorithms, Database Design, Operating Systems, Computer Networking, Software Development and Project Management, Research Methodology

Research in Progress

AI Applications in Renewable Energy Forecasting and Optimization 2025

Md Abu Sayed Khan Faisal, manuscript in preparation, 2025.

Target Journal: Renewable & Sustainable Energy Reviews

Focus: Developing efficient ML models for renewable energy prediction and optimization to support sustainable power systems.

Reconciled AI: Applying GitOps Principles to Ensure AI Applications Stay Reliable and Sustainable 2025

Md Abu Sayed Khan Faisal, manuscript in preparation, 2025.

Target Journal: IEEE Access

Focus: Integrating MLOps and GitOps principles to enhance reliability and reproducibility in AI deployment.

Projects

ERP on University Management System(Undergraduate Project – Southeast University) github.com/faisalkhan94/research

- Designed a centralized student–course–faculty data model (3NF) with role-based access and developed core modules for admissions, enrollment, grading, and attendance.
- Built analytics dashboards for performance insights and exposed REST APIs for integration with external systems.
- Tools: Python (Django/FastAPI), PostgreSQL/MySQL, React, Docker, GitHub Actions

Reconciled AI- Applying GitOps Principles to Ensure AI Applications Stay Up and Running (Capstone Project – University of Wollongong) github.com/faisalkhan94/research

- Developed an end-to-end GitOps/MLOps pipeline integrating Docker, Kubernetes, Argo CD, and GitHub Actions for automated model deployment and rollback.
- Implemented MLflow tracking, Prometheus/Grafana monitoring, and scheduled retraining for reliable and reproducible AI workflows.
- Tools: Python, TensorFlow/scikit-learn, Docker, Kubernetes, Argo CD, MLflow, Prometheus, GitHub Actions, GCP

Autonomous Navigation Robot — Vision-Guided Ball Collection & Goal-Scoring System github.com/faisalkhan94/research

- Designed and programmed a LEGO MINDSTORMS EV3 robot to autonomously detect, collect, and score balls using integrated motors, sensors, and vision algorithms.
- Implemented sensor-based navigation and task coordination logic enabling penalty-shootout and ball-retrieval missions aligned with assignment specifications.
- Tools: Python, LEGO EV3, EV3 Classroom Software, Camera & Proximity Sensors

Technical Competencies

Languages: Python, Java, SQL (MySQL), NoSQL (MongoDB)

Tools: Pandas, NumPy, Matplotlib, Seaborn, Power BI, Tableau, Git, GitHub

Technologies: Machine Learning & AI: Development, training & deployment (classification, regression, clustering, deep learning), Google Cloud Platform (GCP), Kubernetes, GitOps (Docker, GitHub Actions, GKE), MLOps & Deployment: Model serving, CI/CD pipelines, containerization (Docker, Kubernetes)

Experience

Jr Software Engineer, IT WAY BD – Dhaka, Bangladesh March 2021 – March 2023

- Programming & Data Handling: Python (pandas, NumPy), SQL, CSV/JSON data processing.
- Machine Learning: Basic model development (classification, regression, clustering).
- ETL & Data Pipelines: Data cleaning, transformation, and validation workflows.
- Databases: MySQL, SQL-based queries for reporting and analytics.
- Tools & Deployment: Git/GitHub, Flask (internal tools), Docker (basic containerization).

Software Engineer Intern, Divine IT Ltd – Dhaka, Bangladesh January 2020 – April 2020

- Development of Python-based software.
- Gathered experience as a back-end developer.
- Enhanced experience as a Python developer with a focus on optimizing data-processing pipelines and improving algorithmic efficiency from quadratic $\mathcal{O}(n^2)$ to near-linear $\mathcal{O}(n \log n)$ performance.

Certifications & Training

Machine Learning Specialization – (DeepLearning.AI)

[View Credential](#)

- Covered supervised, unsupervised, and reinforcement learning; implemented ML algorithms for prediction and optimization using Python and NumPy.

Deep Learning Specialization – (DeepLearning.AI)

[View Credential](#)

- Gained practical experience in building neural networks, CNNs, RNNs, and sequence models using TensorFlow and Keras.

Renewable Energy Specialization – (University of Colorado, Boulder)

[View Credential](#)

- Explored renewable power generation systems, energy transition models, and sustainable technology integration for decarbonization.

References

Available upon request.