

Ahamed Foisal

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EDUCATION

New York University Abu Dhabi, Bachelor of Science
Major: Computer Science, Minor: Applied Mathematics
Relevant Coursework: *Introduction to Computer Science, Statistics for Social Science, Markets, Data Structures*

Abu Dhabi, United Arab Emirates

May 2026

Study Away - New York University

Relevant Coursework: *Introduction to Data Science, Computational Cognitive Modeling, Applied Internet Technology, Projects in Programming and Data Science*

New York, USA

July - December 2024

Study Away - New York University Paris

Relevant Coursework: *Algorithms, Computer System Org, Probability and Statistics*

Paris, France

January - May 2024

TECHNICAL SKILLS

Languages: JavaScript, Python, C/C++, HTML/CSS, MATLAB, R

Frameworks: React, Node.js, Express, FastAPI, Next.js

Developer Tools: Anaconda, Markdown, MySQL, Postgres, Canva, Jira, NPM, Nodemon, Vercel

Libraries: Matplotlib, NumPy, Pandas, TensorFlow, SciPy, Scikit-Learn, PyTorch, Keras, SQLite

SWE PROJECTS

Instagram Analysis Data Model (Lytport) | Next.js, React, OpenAI api, Facebook Graph API, SQL

[Github link](#) | [Website link](#)

- Designed and developed a **full-stack web application** for analyzing Instagram profiles, tailored for content creators.
- Integrated **Facebook Graph API** to fetch **real-time user engagement metrics** and OpenAI models to generate **personalized insights**.
- Engineered **interactive dashboards** using **React and Chart.js**, visualizing key performance metrics.
- Optimized **database performance** to support **high-volume data retrieval** and historical tracking.
- Implemented **real-time trend analysis** and **audio-to-text transcription features**, improving accessibility.

Evently | Node.js, Express.js, MongoDB, React

[Github link](#)

- Developed a **full-stack event management platform** with event scheduling, guest lists, and task tracking.
- Built a **responsive UI** with **React**, ensuring a seamless experience across devices.
- Integrated **MongoDB** for scalable event storage and **Passport.js** for secure user authentication.
- Implemented **RSVP tracking** and **task assignment features**, enhancing event planning efficiency.

DATA SCIENCE PROJECTS

Gender Bias in Professor Ratings | Python, Scikit-learn, Pandas, NumPy, Matplotlib

[Github link](#)

- Conducted **statistical hypothesis testing** (*Permutation tests, Mann-Whitney U test, Cohen's d, Bootstrapping*) to analyze **gender bias** in professor ratings.
- Built and optimized **Linear & Logistic Regression models**, leveraging **VIF analysis, StandardScaler, and SMOTE** for **feature selection & data balancing**.
- Achieved **73.48% R²** in predicting ratings and **AUC 0.667** in classification by engineering structured and unstructured data.
- Visualized findings with **Matplotlib & Seaborn**, utilizing **correlation heatmaps and confidence intervals**.

WORK EXPERIENCE

NYUAD Arts and Humanities Equipment Center

Student Assistant

Abu Dhabi, UAE

September 2023 - December 2023

- Managed **50+ daily check-ins/check-outs** of video, sound, music, and lighting equipment.

- Conducted **routine testing and maintenance** to ensure **100% functionality** of equipment.
- Assisted in **inventory management**, tagging **200+ assets** and maintaining specialized rooms.
- Supported **set builds, repositioning, and lighting setups** for **student and faculty projects**.

NYUAD Engineering Department
Social Media And Design Student Assistant

Abu Dhabi, UAE
March 2023 - Current

- [Portfolio of work](#)
- Managed **3 social media accounts** (Facebook, Instagram, Twitter) for the **Engineering Department**, growing **engagement by 35%**.
- Designed **marketing materials** (graphics, posters, flyers) for **10+ events**, enhancing visibility.
- Developed and executed **social media campaigns**, boosting **follower count by 25%**.
- Collaborated with faculty & staff to promote **departmental activities** through digital content creation.

RESEARCH EXPERIENCE

Leveraging Diffusion Models for Unsupervised Anomaly Detection in High-Dimensional Data | Machine Learning, Generative Modeling, Anomaly Detection

- Designed and implemented a **diffusion-based anomaly detection framework**, enabling **unsupervised identification of rare patterns** without requiring labeled data.
- Trained **diffusion probabilistic models** to **learn the distribution of normal data**, leveraging deviations for anomaly detection.
- Benchmarked performance against **traditional anomaly detection methods** (*autoencoders, one-class SVMs, Isolation Forest*), improving detection rates on complex datasets.
- Evaluated model effectiveness using **MNIST, KDD Cup 1999**, and other datasets, achieving **high precision, recall, F1-score, and AUC** compared to baselines.

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

NYUAD Bangladeshi Student Association
Secretary

Abu Dhabi, UAE
January 2025 - Current

- Led **5+ major cultural events** with **100+ attendees**, fostering a sense of community.
- Organized **educational & social gatherings** to promote **Bangladeshi heritage and cross-cultural understanding**.
- Managed event logistics, securing **budget approvals & venue arrangements**, ensuring **seamless execution**.
- Collaborated with **student organizations** to maximize outreach and engagement.

ADDITIONAL STRENGTHS

- **Proficient in Microsoft Office Suite (Excel, PowerPoint, Word, Access)**
- Strong ability to **innovate and think critically** for customer-centric solutions.
- Demonstrated success in **collaborative and cross-functional environments**