Mehtab Aftabur Rosul

Artificial Intelligence & Machine learning Engineer

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SUMMARY

Visionary Machine Learning Engineer with deep expertise in Artificial Intelligence, Machine Learning, and Quantum Computing. Skilled in architecting transformative AI-driven cybersecurity systems and deploying real-time threat detection models. Proficient in Python, Java, C++, and front-end technologies, with a proven record of enhancing data security and computational intelligence. Demonstrated success in developing predictive analytics and integrating AI solutions across enterprise platforms.

WORK EXPERIENCE

Sr. Technical Researcher || AI-ML Engineer || Tech & Quantum Computing Enthusiast

EncryptArx
Aug '24 — Present

- Develop and deploy AI models focused on enhancing cybersecurity and real-time threat detection capabilities.
- Design predictive systems ensuring data protection and compliance with privacy regulations.
- Collaborate with cross-functional teams to integrate AI-driven solutions into enterprise security platforms.
- Achieved measurable improvements in threat detection accuracy and system responsiveness.

Android Development Intern

Prodigy InfoTech
Jun '23 — Aug '23

- Built e-commerce, To-Do, and messaging applications using Kotlin, Flutter, and Android Studio.
- Designed intuitive UI/UX flows and integrated SQLite for efficient local data storage.
- Enhanced app performance and user engagement through responsive design.

Machine Learning Intern

VIEH Group
Feb '23 — Jul '23

- Developed employee turnover prediction models using Python, scikit-learn, Pandas, and NumPy.
- Improved model accuracy through data preprocessing and hyperparameter tuning.

Android Development Intern

Oasis Infobyte
Mar '22 — May '22

- Created Quiz, Calculator, and Stopwatch apps in Java using Android Studio and SQLite.
- Focused on responsive UI/UX design and seamless local database integration.

Robotics Intern

Kodacy Robotics
Oct '21 — Dec '21

- Programmed robotic circuits and RC systems using Arduino and Raspberry Pi platforms.
- Developed a robotic arm with real-time control capabilities enhancing automation processes.

SKILLS

Programming Languages Python (Expert), Java, C++, C, JavaScript, SQL, HTML/CSS
AI & Machine Learning Frameworks TensorFlow, Keras, scikit-learn, Pandas, NumPy, OpenCV, Google Cloud AutoML, Comet.ml, LangChain, spaCy, Hugging Face Transformers, TensorBoard, Kubeflow
Data Science & Analytics Time-Series Forecasting, Data Science & Analytics, Natural Language Processing (NLP), Computer Vision, Deep Learning, Neural Networks
Front-end Development React.JS, Three.JS, UI/UX Design, Front-end Development
DevOps & Infrastructure Infrastructure as Code, DevOps pipelines, Automation, Process Optimization

PROJECTS

Employee Turnover Prediction, VIEH Group Link
Feb '23 — Jul '23

- Developed predictive models using Python, scikit-learn, and data preprocessing techniques to forecast employee turnover.
- Improved model accuracy through hyperparameter tuning and feature engineering.

Real-Time Image Classification & Object Detection, EncryptArx Link
Aug '24 — Dec '24

- Implemented real-time image classification and object detection using TensorFlow, OpenCV, and YOLO frameworks.
- Optimized processing speed and accuracy for deployment in security applications.

Weather Forecasting App, Graduation Link
Jan '23 — Mar '23

- A team project accomplished during my graduation, and have learn a lot o full stack development.

Currency Exchange Rate App, Freelance Link
Apr '23 — Jun '23

- Developed a Python application integrating fixer.io API to display current currency exchange rates with a user-friendly interface.

Game Development Suite, Freelance Link
Jul '23 — Dec '23

- Designed and programmed multiple 2D games using Python and Pygame, incorporating mechanics such as collision detection and gravity.

Quantum Circuit Engineering: Link

- A concise Qiskit library showcasing everything from basic gates and data encoding to dynamic control flow, time-evolution, benchmarking, and circuit optimization.

AWARDS & ACHIEVEMENTS

Applied AI with Deep Learning

IBM

Dec '22

Completed professional certification demonstrating expertise in applied AI and deep learning techniques.

Data Science & Machine Learning

Stanford University

Dec '22

Earned certification covering advanced data science and machine learning concepts and applications.

Deep Learning Specialization

DeepLearning.AI

Dec '21

Specialized training in neural networks and deep learning architectures.

AI & Machine Learning

NVIDIA

Dec '21

Certification focused on AI and machine learning fundamentals and applications.

Python for Data Science

IBM

Dec '20

Completed certification emphasizing Python programming for data science tasks.

Python Programming

Independent

Dec '19

Fundamental certification in Python programming language.

EDUCATION

Master of Computer Applications (M.C.A.) in Computer Applications, Amity University Online

Dec '23 — Present
Noida

- Pursuing advanced studies focused on Artificial Intelligence, Machine Learning, and software development methodologies.

Bachelor of Computer Applications (B.C.A.) in Computer Applications, Girijananda Chowdhury Institute of Management & Technology, A.S.T.U., Guwahati

Jul '20 — Jun '23
Guwahati

- Completed undergraduate studies with coursework in programming, data structures, algorithms, and database management.

Higher Secondary Education (H.S.E.C.) in Science Stream, Brookfield Education & Research Institution, Assam H.S.E.C.

Apr '18 — Mar '20
Goalpara

- I completed my higher secondary education at BERI, where I completed Class 10 with a strong academic record.

Secondary Education (S.E.B.A.) in General Education, Oasis Academy, Secondary Education Board of Assam

Apr '06 — Mar '18
Goalpara

- I completed my secondary education at Oasis Academy, where I completed Class 10 with a strong academic record.

PUBLICATIONS

Enhancing Cybersecurity through a Comprehensive Intelligent Framework: An Advanced Scalable Real-Time Threat Detection System

ResearchGate

Jan '25

Co-authored a research paper focusing on the development of a scalable AI-driven real-time threat detection system enhancing cybersecurity measures.

Integrating Advanced Dialogue Management, Natural Language Generation, and User Personalization in Conversational AI: A Comprehensive Framework

Independent

Jul '24

Presented a comprehensive framework integrating dialogue management and user personalization techniques in conversational AI systems.