

Koushik Ahmed Kushal

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ABOUT ME

Machine Learning Engineer building practical AI tools for language, image, and healthcare, driven by a passion for creating life-saving solutions for global health and environmental challenges. I excel at simplifying complex ideas, fostering collaboration, and empowering users with AI. Dedicated to socially-conscious AI.

EDUCATION

American International University, Bangladesh
Computer Science and Software Engineering
CGPA: 3.21 on a scale of 4.00

2015 April - 2020 June

UNDERGRAD RESEARCH AND PROJECTS

Document Generation With Bidirectional LSTM and Attention Layer. (NLP)

8-layer Bidirectional LSTM network that takes inputs stream of text (n-1 gram) and outputs(final word index) a document, based on input. Incorporated Shakespeare and wiki dataset, trained with self-attention based Bidir-LSTM.

Radiologist level chest disease detection and localization with gradcam. (Computer Vision)

Designed a Conv-net on top of .12 million samples of 30,805 patients x-ray images annotated with 14 dif-thoracic Pathology labels. The accuracy of this model exceeds Radiologists performance on **detecting chest-diseases**.

WORK AND INTERNSHIP

Machine Learning Intern - Infosys Limited, Bangalore

June 2019 - Sept,19

Detects Failing Server Logs (anomalies) On High-Dimensional Distribution. (EDA+ML)

Developed an unsupervised machine learning model to detect system failures from high-dimensional server logs. Applied Gaussian distribution modeling and EDA to understand data patterns. Optimized the detection threshold using p-values to achieve the best F1 score, enabling reliable identification of anomalies without labeled data.

Freelance Machine Learning Engineer, Upwork

Apr 2021 - Sept 24

As a freelance Engineer, I successfully completed over 17 projects across NLP, computer vision, and multimodal learning for international clients. This experience honed your ability to rapidly prototype, deploy, and scale AI solutions while developing deep expertise in PyTorch, TensorFlow, and OpenCV frameworks.

AI Engineer, Shustho BD

Nov 2024 -Present

AI Engineer at Shustho BD, leading a team to develop an AI-powered health app inspired by CalAI. The app offers food recognition, calorie tracking, and personalized health insights. I manage ML model development and deployment to deliver real-time, user-focused health analytics.

Publications – IEEE Conference (In Progress..)

AQFusionNet: Robust Multimodal Deep Learning for Air Quality Index Prediction through Atmospheric Imagery and Environmental Sensor Integration – Designed a lightweight multimodal model integrating sky images and environmental sensor data to predict AQI, demonstrating superior performance over baseline methods. The work is currently under review for publication at an IEEE conference.

AWARDS AND CERTIFICATIONS

The Duke Of Edinburgh Award, Bronze
Deep Learning Specialization, Coursera
AI for Medical Specialization, Coursera

SKILLS

coding : Python, Javascript, java,C++, SQL, Matlab.
Tools : Excel, GCP, CI/CD , MLflow, Flask, Pytorch

RESEARCH INTEREST

COMPUTER VISION | **LARGE LANGUAGE MODELING (LLM)** | **REINFORCEMENT LEARNING**

IELTS SCORE

Overall : 6.5