

# Koushik Ahmed Kushal

koushikahmedcse@gmail.com | www.linkedin.com/in/koushikahamed1234/ | 01773481741 | Dhaka 1212

## EDUCATION AND HONORS

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### American International University Bangladesh

- BSc in Computer Science (CSSE) 2020-May
- Relevant Coursework: Machine Learning, Data Science Statistics, Big Data Analytics, Probability & Discrete Mathematics

### The Duke of Edinburgh's International Award

- Bronze for DofE programme (**Bronze**)

## PROFESSIONAL EXPERIENCE

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### Infosys Limited, Bengaluru, India

*Data Science & Machine Learning Intern*

*June 2019 - Sept 2019*

- Utilized Python to implement unsupervised machine learning techniques for server and security logs on unstructured data, which clustered system activities, patterns, and operations.
- Processed 3.2 Million samples of event log (security, audit, system) for analysis, which prevents risks through tracking (hacks, Unwanted login) failure audits and building a prolific system trend for the network.

### Amal Foundation

*Data Analyst & Backend Python Developer,*

*June 2020 - Nov 2021*

- Proactively liaised with the design team and senior developer to enhance the efficiency and performance of the client site.
- Develop tools and keep superintends web trends on server and database. Analysis data on top of RFM criteria which is based on spending and fund stat and employer trends.

### Shustho (Fitness & Healtech Startup)

*Machine Learning Engineer*

*Jan 2022*

- *Enhancing machine learning ideas to lead a project that concerns fitness interests, dietary preferences, and fitness goals that enables you to find your best fit (Ideal ones) in a fitness platform.*

## SKILLS

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- **Programming Languages:** Python, Java, C, C++, C#, JavaScript, HTML, CSS, SQL, BigQuery
- **Big Data & Machine Learning:** Spark, PySpark, Hadoop, Tensorflow, Keras, Scikit-learn, Numpy, Pandas, Matplotlib, Flask, Scipy, Seaborn, Selenium, NLTK, OpenCV, PyTorch, Random Forest, Decision Tree, SVM, XGBoost, DBScan, Kmeans
- **Data Science & Miscellaneous Technologies:** A/B testing, ETL, Data science pipeline (cleansing, wrangling, visualization, modeling, interpretation), Statistics, Chatbot development, Time series, Hypothesis testing, IBM Watson, GCP, MLOps

## RESEARCH & DEVELOPMENT

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### *Underwater Object Detection and Localization (Computer Vision)*

*2018-Aug*

- It is challenging to produce an efficient object detection model with high precision and low processing time, there were many different networks have experimented with the traditional algorithm development process like HOG, CNN, SVM, and R-CNN.
- Proposed YOLO-Lite model with Spatial Pyramid Pooling (SPP) vision-based execution through CPU achieved The precision of 75.80% with 9 fps. 128X128 dim on top of YOLO v3-tiny architecture with 93(fps) with 80.69% precision

### *Automate Documnet text -detection and extraction (human level)*

*2022-*

- Trained millions of data points, and further refined each use case. Thus, our ML models achieve much higher quality and generalize across challenging document types.
- Technologies - Efficient-Det, Yolov4 for detection, OCR engine to process and extract data with customized image processing.