Mustahid Ahmed

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Online Version
https://ahmedmustahid.github.io/html-cv

Residence
Tokyo, Japan

Nationality
Bangladesh

Git Profile
https://github.com/ahmedmustahid

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Python	++++	C++17	++++	C	++++	Dart/Flutter	++++	Swift	+++	Azure	+++
AWS	++++	Statistics	++++	Image Processing	++++	NLP	+++	Algorithms	++++	Data Structure	++++

Professional Experience

Sensyn Robotics

Machine Learning Engineer

May 2022 - Present

HyperCube Ltd.

Machine Learning Engineer

April 2020 - April 2022

Self employed

Software Engineer

April 2020 - Present

Projects

Crack segmentation from tiles, Sensyn Robotics

Feb 2023 - Present

```
  Implementing model for crack segmentation using novel transformer based segmentation
architecture
```

Python Pytorch OpenCV mmcv

Analog gauge reading by computer vision, Sensyn Robotics

November 2022 - Present

```
  Implemented and deployed model for analog gauge reading from web cam in Nvidia Jetson Nano
```

Python Pytorch OpenCV onnx mmcv Apache TVM

Extraction of information of documents using deep learning methods, Sensyn Robotics

August 2022 - October 2022

```
  Extracting and organizing information from documents using deep learning
```

Python | Pytorch | OpenCV | Tesseract OCR

People detection from fish eye images, Sensyn Robotics

May 2022 - July 2022

```
  Because commonly used algorithms are not suitable for fish eye images, implemented new
algorithm that can detect people in such images.
```

Python | Pytorch | OpenCV

NLP based Chatbot, HyperCube Ltd.

June 2021 - October 2021

```
  Model deployment, system design and maintenance using AWS Amplify, AWS Api Gateway, AWS
Lambda, AWS Sagemaker.
  Front and backend development using Flutter/Dart/Swift programming languages.
```

AWS | Dart/flutter | Swift | Docker | Git

Database design and deployment, HyperCube Ltd.

March 2021 – May 2021

```
  Designed MySQL database schema and deployed it in Azure.
  Using web application API to connect web app with the database.
```

MySQL | Azure | Python | Git

Supply Chain Optimization, HyperCube Ltd.

December 2020 - February 2021

```
  Research on optimization problems.
  Using linear programming and integer programming methodologies in Gurobi Python and C++ for
supply chain optimization.
```

Python | C++ | Git

Video Anomaly Detection, HyperCube Ltd.

May 2020 - November 2020

```
  Research on deep learning based activity detection algorithms.
  Constructing and deploying algorithm to detect anomalous events in video.
  Transferring the analysis data to Azure DB deployed in cloud.
```

Python | OpenCV | PyTorch | MySQL | Azure | Docker | Git

Memorize: A game for training memory, Self employed

June 2021 - Present

```
Designing front end and game logic in Swift programming language.
```

Swift Git

Academic Qualifications

Tohoku University Sendai, Japan
MSc. Elementary Particle Physics [2018 - 2020]

Tohoku University Sendai, Japan
BSc. Physics [2014 - 2018]

Tokyo University of Foreign Studies Tokyo, Japan
Associate Degree, Japanese Language [2013 - 2014]

Research/Talks

Masters Thesis: Machine Learning, Deep Learning, Data Analysis

```
Simulation of particle collisions and their reaction in particle detectors using C++.
Desiging particle detectors using C++ framework.
Analyzing data read by particle detectors using machine learning and deep learning
algorithms.
```

Python OpenCV PyTorch C++ Git CMake

Conference Presentation: Japan Physical Society Annual Meeting

```
Full Detector Simulation of Pair Monitor and Application of Machine Learning to Determine
Determine Beam Size
Nagoya University, Nagoya, Japan [March '20]
```

Conference Presentation: International Workshop on Future Linear Colliders

```
Search for weakly interacting dark matter in the International Linear Collider
University of Texas, Arlington, Texas, USA. [Oct '18]
```

Language Skills

```
English, Business Level, TOEFL iBT 110
Japanese: Business Level
Bengali: Native Level
```

MOOCs

- Deep Learning Specialization : Coursera, Stanford Online
- Algorithm Specialization : Coursera, Stanford Online
- GAN Specialization : Coursera, Stanford Online
- NLP Specialization : Coursera, Stanford Online
  Categories: Python C++ Algorithms Deep Learning