# Mustahid Ahmed

Last updated: February 27, 2023

Online Version

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

Residence

Tokyo, Japan

**Nationality** 

Bangladesh

Git Profile

https://github.com/ahmedmustahid

**Email** 

amustahid25@gmail.com



# Professional Experience

#### Sensyn Robotics

**Machine Learning Engineer** 

June 2022 - Present

## HyperCube Ltd.

**Machine Learning Engineer** 

April 2020 - May 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



# 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