

# HAZMAN NAIM BIN AHSAN

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Portfolio: [hazmannaim.github.io](https://hazmannaim.github.io)

## Professional Experience

### DAH REPLY AI

AI Developer

Kuala Lumpur, WP Kuala Lumpur

October 2023 – January 2024

- Part of the AI Backend Research and Development team, responsible for innovating and implementing AI technologies for various applications such as a product embedding generator, e-commerce recommender system, speech-to-text application, and spam detection algorithm for multiple clients.
- Improved team productivity by 75% through the adoption of effective project management strategies, utilising version control with Git and GitHub for seamless collaboration and progress tracking, resulting in consistent achievement of project milestones.
- Proficient in deploying machine learning models using the FastAPI framework, ensuring high-performance and scalable solutions. Leveraged AWS EC2 services for pipeline deployment, optimising resource utilisation, and significantly reducing execution time.
- Demonstrated expertise in API load testing using tools like Postman and Locust, ensuring the robustness and reliability of deployed AI solutions. Conducted rigorous testing protocols to validate the functionality and performance of APIs before deployment.

## Training and Certification

### IBM AI ENGINEERING PROFESSIONAL CERTIFICATE

[Link to Repository](#)

November 2023

### DATA SCIENTIST BOOTCAMP-GENERAL ASSEMBLY (K-YOUTH DEVELOPMENT PROGRAMME)

[Link to Repository](#)

October 2023

### KPMG AU DATA ANALYTICS VIRTUAL EXPERIENCE PROGRAM ON FORAGE

[Link to Repository](#)

August 2023

## Projects

### MACHINE LEARNING CLASSIFICATION OF BUILDING DAMAGE IN POST-STORM EVENT ASSESSMENT

(ANNUAL EY OPEN SCIENCE DATA CHALLENGE COMPETITION 2024)

[Link to Project](#)

March 2024

- Led a team of 4 members as the technical lead for an international machine learning competition organised by EY, overseeing the end-to-end process from data collection to model evaluation, ensuring seamless collaboration and adherence to artificial intelligence development best practices.
- Orchestrated the complete project lifecycle, from data acquisition to model deployment, utilising Git and GitHub for version control and dataset management, ensuring traceability and reproducibility.

- Spearheaded the data collection efforts, acquiring pre- and post-event Maxar GeoEye-1 (Optical) satellite imagery of San Juan, Puerto Rico, and prepared the dataset using QGIS software while ensuring data integrity and quality.
- Optimised data processing workflows by developing a robust data pipeline, managing a 20 GB dataset through multiple processing stages, and efficiently aggregating data for model training, streamlining operations and enhancing productivity.
- Leveraged cloud computing resources and CUDA acceleration to train a state-of-the-art computer vision machine learning model based on Ultralytics YOLOv8 architecture, employing MLOps procedures for effective experiment tracking and hyperparameter tuning, monitored through the WandB machine learning platform.
- Addressed data imbalance issues by fine-tuning the Stable Diffusion 2 model to generate synthetic datasets, enhancing model generalisation and performance, within the Hugging Face environment, ensuring an efficient and scalable workflow.
- Conducted comprehensive model evaluations, employing advanced metrics such as mAP50, precision, and recall, augmented by confusion matrices and evaluation curves, resulting in the development of a top-performing model with a mAP50 score of 0.48, positioning our team in the 17th place among 230 participating teams or top 8% internationally.

## Education

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### UNIVERSITI MALAYA

Bachelor of Science, Physics

Kuala Lumpur, WP Kuala Lumpur

September 2019 - March 2023

- Grade: *Pass with Honours*
- Best Presentation Award for Final Year Project “Studies on Bipolar Outflows in Star Forming Region AFGL5142 with ALMA”.

### UNIVERSITI MALAYA

Foundation Studies in Science (Physical Science)

Kuala Lumpur, WP Kuala Lumpur

September 2018 – August 2019

- Grade: *Pass and Completed*
- MUET: *Band 3*

## Skills

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<b>Programming Language</b>	Python (Experience), SQL (Experience), R (Beginner), C (Beginner), Latex (Experience)
<b>Softwares and Tools</b>	GitHub (Intermediate), Jupyter (Intermediate), Anaconda (Intermediate), R Studio (Beginner), AWS EC2 (Beginner), Power BI (Beginner), QGIS (Beginner), WandB (Beginner), Hugging Face (Beginner), NVIDIA Jetson Nano (Beginner)
<b>Data Science</b>	Data Preprocessing, Data Visualization, Data Analysis, Model Development, Machine Learning, Deep Learning, Model Evaluation, NLP, Computer Vision, Artificial Intelligence, Image Processing
<b>Libraries and Packages</b>	Scikit-learn, TensorFlow, PyTorch, Keras, Matplotlib, Pandas, NumPy, SciPy, Seaborn, Plotly, Folium, Dash, Flask, FastAPI, OpenCV