

# AIMAN HASNI BIN ZAZANI

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## OBJECTIVE

To obtain professional career in machine learning, data and robots industry utilizing my relevant studies, technical and problem solving skills.

## EDUCATION & QUALIFICATION

### *Machine Learning Researcher – (Internship)*

Ontario Tech University, Oshawa, Canada (November 2021-March 2022)

### *BSc (Hons) Computer Science (Artificial Intelligence)*

National University of Malaysia (2018-2022)

**Selected Coursework:** Algorithm and Data Structures (Java), Web Applications, Database Applications, Human-Computer Interaction, Computer Systems (Unix), Machine Learning, Robot Application, Computer Vision, Internet of Things, Big Data, Data analysis.

## SKILLS

**Coding:** C/C++, Java, PHP, Python, Javascript, HTML, CSS, ROS, Dart

**Technologies/Environment:** Windows, Linux, MySQL, Django, Flask, Design (UI/UX), Git, Data analysis & Engineering, YOLO, Tensorflow, Docker, PowerBI, Tableau, Object Detection, Machine/Deep Learning, Flutter, Firebase, Unity, Raspberry Pi, Adobe Photoshop, Illustrator.

## PROFESSIONAL EXPERIENCES

### **Visiting Researcher at Ontario Tech University, Ontario, Canada (2021-2022)**

- Developed research project on UN Sustainable Development Goals under Canada-ASEAN Scholarship and Education Exchanges for Development (SEED) as a visiting researcher on machine learning and robots development.

### **Full-stack Flutter developer at CHIPTA 2021 Hackathon (2021)**

- Built fully functional application prototype to compete for CHIPTA 2021 Hackathon joining SA Lab team members, National University of Malaysia, under IPT category organized by The Malaysian Administrative Modernisation and Management Planning Unit (MAMPU).

### **Freelance web developer and SEO optimization (2020-2021)**

- Do web automation and SEO optimization using CMS for small business vendors. Dealt with several business owner to accomplish their requirements in optimizing their vendor website.

## PROJECTS

### **Robotic Dog for Human-Robot Interaction Study (March 2021) – Visiting Researcher**

- Built mechanical ears movement to implement in the research so people can view a robotic dog that can show emotional expressions.
- Used Raspberry Pi and several hardware development to accomplish the task to conduct Human-Robot Interaction study.
- Implemented Google Vision and Voice AI Kit to make the robot moved in smart environments.

#### **Maximizing Agriculture using AI/Robots (March 2021) – Visiting Researcher**

- Developed deep learning pipeline to create a computer vision model that can classify grape leaves disease focused on Esca disease.
- Used Tensorflow as backend, and Docker to improve quality of development environment.
- Model had been tested in a web application platform, this is the link - <https://aimnhsni.github.io/esca-detection/>

#### **Sharity Apps for CHIPTA 2021 Hackathon – Android Application**

- Used Flutter to build CRUD application as a fullstack.
- Application purpose is to help people make donations and receive donations by online.
- Application prototype in APK can be tried here - [Sharity Apps.apk](#)

#### **Gig Economy Portal and Sentiment Analysis Implementation (March 2021) – Final year project**

- Developed fully function portal for job searching and posting in gig economy sector using Django.
- Analyse twitter sentiment using tweets data and made polarity categorization using machine learning algorithm and python library. Results from data analyzed will be visualized in dashboard of the portal.
- Live demo for this project - <https://gigger-fyp.herokuapp.com>

#### **Automated Number Plate Recognition (September 2020) – Computer vision project using java**

- Preprocessed plate number images from Ondrej dataset to localize box of number plate from car images.
- Output is a cropped and processed image of a readable number plate.
- Used several algorithm eg: Otsu Thresholding, for image processing in java language
- Link for the project <https://github.com/aimnhsni/ANPR-Java>

#### **Object detection using YOLOv3 (September 2020) – Detect PPE on constructor worker (vest, helmet and people)**

- Annotated images of construction worker using python and anaconda environment. Trained model using Yolov3 in google colab. The trained model succeed to detect PPE in real time video using webcam with good accuracy.
- Link for the project <https://github.com/aimnhsni/helmet-detection>

### **AWARDS**

#### **Canada-ASEAN Scholarships and Educational Exchanges for Development (SEED) Recipient – Ontario Tech University, Canada**

- Manage to receive a scholarship for internship at Ontario Tech University.

#### **CHIPTA 2021 HACKATHON 1ST PLACE – (MAMPU)**

- Won IPT category at first place for the hackathon.

#### **DEAN LIST AWARD SEMESTER 5 2019/2020 – NATIONAL UNIVERSITY OF MALAYSIA (UKM)**

- GPA 3.84 Of 4.00 during the semester 5, 2020/2021 session.

### **REFERENCES**

**TS. ASSOC. PROF. MOHD RIDZWAN BIN YAAKUB**

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