AMAR HAIQAL BIN CHE HUSSIN
UNIVERSITI TEKNOLOGI PETRONAS

Tel: +60137889339 | E-mail : haiqal5855@gmail.com | LinkedIn: Amar Haiqal
| Github : amaro98 | Portfolio: https://haiqal5855.wixsite.com/website

OBJECTIVE

I am a Chemical Engineering graduate from Universiti Teknologi PETRONAS, specialised in Environmental and Sustainable Engineering. I graduated in September 2021 and **immediately ready for employment with vision to drive and contribute to the society**. I am **committed to my responsibilities and can be a great think-tanker in decision making process**. From the experience of my co-curricular activities and involvement in Student Representative Council, I believe I can play my role as a **good team player** and **lead the way** to the end goal.

EDUCATION

Bachelor In Chemical Engineering With Honours
Universiti Teknologi PETRONAS
July 2016 to September 2021
CGPA: 3.12
GPA: 3.70

Sijil Pelajaran Malaysia
Sekolah Menengah Sains Kota Tinggi
January 2011 to November 2015
SPM : 5A+, 3A, 1A-

SKILLS

Microsoft Office	-	Experienced	Python	**-**	Intermediate
Machine Learning	-	Experienced	Data Science	-	Intermediate
Aspen HYSYS	-	Intermediate	SIMCA	-	Basic
CapdetWorks	-	Intermediate			
MATLAB & Simulink	-	Intermediate			

TECHNICAL EXPERIENCES

Part-Time Special Service
Universiti Teknologi PETRONAS
August 2021 – Present

- Developed **regression and classification machine learning model** using **Neural Network and XGBoost** to predict chemical properties
- Performed **hyperparameter tuning** to increase the model accuracy
- Performed **clustering** to identify patterns
- Extract insights from big dataset using **principal component analysis (PCA)**

Production Intern
Oleon Sdn. Bhd.
June 2020 to December 2020

- Involved in Green Belt Project together with other experienced engineers to **minimize waste production and increase production yield**
- Provide **waste pipelines mapping and recommendations** for waste mitigation for future reference
- Involved in **preparing Standard Operational Procedure** for equipments such as spray cooling plants, screw conveyor pump and tank cleaning
- **Communicate with external parties** to conduct testing in the plant

LEADERSHIP EXPERIENCES

Assistant Project Director
UTP Campus Election Secretariat 2021
November 2020 - January 2021

- Assisted in the Campus Election Guideline amendment to suit the online mode of event
- Engaged with Deans and Departments' Chairs to encourage voting among students
- Managed to break record for the highest voting turnout

Head of Department (Logistics)
Lombok Almsgiving for Sustainability
January 2019 – August 2019

- Communicate with departments for transport preparation
- Ensure the team has prepared the required item to run the events
- Established a centralized sheet for item crosschecking and cost reporting

Head of Department (Sponsorship and Business Department)
Campus Venture Week 2019
May 2019

- Managed to secure several external vendors
- Approached internal bodies for sponsoring the event

Public Relation Executive
Student Representative Council UTP 2018/2019
May 2019

- Supervised UTP communities and SRCUTP social media platform
- Keep the students updated about the current campus issues
- Engaged with students to raise their concerns to the management staffs such as registration and co-curricular classes issues
- Engaged with student representative from other campus for information exchange
- Conducting a tour with Vietnamese students around Seri Iskandar and exchanging culture

Treasurer & Supervisor of Business & Sponsorship Department
Khemah Ibadah UTP 2018
2018

- Secured 5 external sponsorships worth RM23,000.00
- Business department managed to generate revenue up to RM1,300
- Had a budget surplus of RM24,000.00 in the end of the event
- Initiated methods to deal with initial budget constraint

PROJECT EXPERIENCES

Machine Learning Based Tool for PID Controller Tuning Status

- Aimed to study how machine learning can be implemented to identify PID controller tuning status
- Developed various machine learning models such as SVM, Decision Tree, k-NN, Neural Network and XGBoost
- Developed XGBoost prediction model with 98.4% accuracy

Resource Recovery from Wastewater Treatment Plant to Produce Value Added Product

- A plant design project with aim to recover substances to convert to useful products
- proposed to recover methane from sludge which can be utilized to produce bio-gas and incinerate the sludge via pyrolysis to produce char
- Performed economic and wastewater simulation using CapdetWorks
- Perform simulation using several hypothetical components in HYSYS

Automatic Plant Watering System

- Developed a device that will automatically waters the plant based on the soil temperature and moisture level
- The device is programmed using Arduino

Separation of Ethylene

- Project aimed to recover ethylene from input gas
- Proposed using cryogenic distillation to remove heavy components and adsorption to separate ethane from ethylene

CERTIFICATIONS

Neural Networks and Deep Learning
DeepLearning.AI
November 2021

Applied Data Science Specialization
IBM
October 2021

Deep Learning Onramp in MATLAB
MathWorks
September 2021

Machine Learning A-Z
Udemy
September 2021

Signal Processing Onramp in MATLAB
MathWorks
September 2021

Oil & Gas Process Simulation using Aspen HYSYS
Udemy
August 2021

Machine Learning Onramp in MATLAB
MathWorks
June 2021

REFERENCES

Pieter Van Hoef
Operation Manager
Oleon Port Klang,
57, Jalan Sungai, Taman Perindustrian Pulau Indah,
42920 Pelabuhan Klang, Selangor,
Malaysia
010-267 8115
pieter.vanhoef@oleon.com

Dr. Tuan Mohammad Yusoff Shah bin Tuan Ya
Mechanical Engineering Department
Universiti Teknologi PETRONAS,
32610 Seri Iskandar, Perak,
Malaysia
+605 368 7198
tyusoff@utp.edu.my