Ahmad Hafizuddin Bin Ahmad Jaafar

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EDUCATION

Bachelor of Science, Electrical Engineering

University of California, Los Angeles   Sept. 2017 – June 2021

Cumulative Grade Point Average   **3.79**

EXPERIENCE

Undergraduate Student Researcher   Sept 2018 – July 2021

Xavier Optics, Inc

Fang Lu Mesoscopic Optics and Quantum Electronics Laboratory   Los Angeles, CA

- o Participated in the fourth cohort of the Sustainable Los Angeles Grand Challenges Undergraduate Research Program in 2018 and placed in UCLA Plasma and Space Propulsion Laboratory.
- o Contributed to a scientific review pertaining to the agricultural usage of cold atmospheric plasma in 2019.
- o Created data sets, analyzed data from data acquisition systems, and designed the features used in several ML models.
- o Developed an interface for the FormLabs printing software to enable real-time printing algorithm modification.
- o Spearheaded Xavier Optics as the Vice President of Technology, conducting customer discovery and commercialization plans for a Phase I Small Businesses Innovation Research (SBIR) in 2020.

Research Investment Strategy Intern   July 2019 - Sep. 2019

Khazanah Nasional Berhad   Kuala Lumpur, WP

- o Developed an applet to model the portfolio return using numerous regression models to visualize the efficient frontier of potential different asset classes using Python
- o Performed data analysis (financial ratios, market size) on macroeconomic and firm data extracted from Bloomberg, which were subsequently used as a basis for presentation to senior executives.
- o Assisted team members in analyzing financial and operating information of firms and industries, creating statistical presentations that compare financial performance and assisted in creating a standardized presentation to depict projected financial results and to value companies.

Technology Consulting Intern   June 2018 - Sep. 2018

Accenture   Kuala Lumpur, WP

- o Designed and developed a website used for troubleshooting incidents pertaining using angular and a node.js backend and deployed it for production.
- o Developed python scripts used to extract information from the production database in MySQL
- o Developed Groovy scripts in JMeter to automate the API call to the System Integration Testing (SIT) server and analyzed the performance under high load.
- o Created several SoapUI projects designed to cross-check the REST API calls from Production.

TECHNICAL SKILLS

- **Programming Languages** *Most Familiar* Python, MATLAB; *Previous Experience* C/C++, MySQL, R
- **Tools, Frameworks, and Programs** Anaconda, Office, LightTools, Solidworks

PROJECTS AND ACTIVITIES

- **Busserbot:** Designed the system architecture, developed the algorithm, and documented the Busserbot: a robotic busser designed for commercial use in Webots and Python,
- **Aircopter**: Designed a microcontroller in AutoCAD and programmed the flight system using C.
- **Hydroponic Farm System**: developed a self-sustaining lettuce farm build using several sensors and provides real-time status using python
- **Multiagent Gridworld Minigame:** Implemented **Express.js** REST API back-end with MongoDB database for temporary game data and permanent strategy data and built **React** front-end game display using Redux state management
- Participated in many **Kaggle Projects** to hone skills in data set cleaning, feature engineering and prediction methodologies.

RELEVANT COURSEWORK AND SKILLS

- **Undergraduate:** Machine Learning, Data Structures, Computer Organization, Algorithm Design, Digital Signal Processing, Feedback Control of Systems, Reinforcement Learning, Courses in C++
- **Self-taught:** Statistical Regression Models, Corporate Finance, Financial Modelling, Business Mathematics, Neural Networks, Data Science Foundations