#### MUHAMMAD RAZIQ RAIF RAMLI

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### Education

### Purdue University, West Lafayette, IN

Major: Bachelor of Science in Computer Science (in-major GPA: 3.59)

Minor: Mathematics

- Scholarship: PETRONAS Education Sponsorship Program (Full-ride scholarship for undergraduate studies)
- Relevant Coursework: Operating Systems, Software Engineering, Relational Database, Data Mining & Machine Learning, Analysis of Algorithms, Virtual Reality Technology, Competitive Programming

#### **Employments**

### **Rosen Center for Advanced Computing**

Software Developer, Intern - Python, Jupyter, SQLite, GDAL, Ipymaterialui

May 2020 - Aug 2020

Graduation: May 2022

**CGPA**: 3.68

- Rebuilt a geospatial visualization and analysis tool as a Jupyter notebook application.
- Implemented a simultaneous visualization feature which was not feasible with the previous technology stack.
- Designed a clean native web graphical user interface for the application.
- Improved the abstraction layers of the software with a focus on modularity and performance.

# Purdue Environmental & Ecological Engineering Department

Software developer, Part-time - Python, Tkinter, Pygubu

Jul 2019 - May 2020

- Developed a techno-economic analysis software for Critical Materials Institute's projects at TRL 4-6.
- Reconstructed the whole codebase in a modular and object-oriented structure.
- Streamlined the software's user interface and added support for multiple workspaces.
- Developed a new software concurrently to assess projects at TRL 1-3.
- Was the sole developer for the project under the oversight of a graduate student.

### Software Developer, Volunteer - Python, Tkinter, Pygubu

May 2020 - Aug 2020

- Prepared onboarding materials for the new software developer that filled up my previous position.
- Provided insights and directions on how new features could be implemented.
- Collaborated to develop new software features and peer review feature implementations.

### **Software Projects**

# Fortune - ReactJS, Flask, Redux, Python, Typescript, PostgreSQL

2020

- Developed a web-based cryptocurrency trading game that operates on real time cryptocurrency data.
- Implemented the admin functionalities, game management page, and game chat feature.
- Collaborated in an agile software development cycle.

# Ninja VR - Unity, C#, SteamVR

2019

- Developed a virtual reality fighting game with Unity and SteamVR
- Integrated 3D enemy characters into the game and implemented their combat abilities.
- Developed the fighting logic between the player and the enemy characters.

### System Monitor - C, GTK, Linux

2019

- Developed a system monitor program for Linux by using the GTK library in C.
- Implemented all the program's fronted components with Glade.
- Connected the frontend components with the processed data in the backend.

# **Numerical Analysis** - Python

2019

 Developed a Python program to map images into a graph and perform numerical Integration by using Simpson's rule. The program was used to aid the writing of an IB Mathematics exploration paper.

# Skills

**Technology/ Framework:** Jupyter, ReactJS, Flask, Git, Linux, PostgreSQL, SQLite, Unity, SteamVR, Postman, Wireshark, Autopsy **Programming Languages:** Python, C, C++, Typescript, JavaScript, Java, C#, Arduino, R

## **Activities**

# Summer Undergraduate Research Symposium

2020

Presented my project in the virtual undergraduate research symposium at Purdue.

# **Tracer FIRE**

 Competed in the Forensic & Incident Response Exercise by Sandia National Laboratories (1st place out of 7 participating teams). 2019

# Competitive Programming - C++, Java

 Participated in a competitive programming competition during Purdue AITP's Computing Challenge Day (3rd place out of about 20 participants).

 Competed in the ACM ICPC: Malaysia National alKhawarizmi Programming Contest (12th place out of 43 participating teams).

Competed in the Malaysian Computing Olympiad (top 30 out of about 500 participants nationally).

2018