

MUHAMMAD RAZIQ RAIF RAMLI

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Education

Purdue University, West Lafayette, IN

Graduation: May 2022

CGPA: 3.68

- **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, Purdue University, IN

Software Developer, Intern - Python, Jupyter, SQLite, GDAL, Ipykernel, Ipyleaflet

May 2020 - Aug 2020

- Rebuilt a geospatial visualization and analysis software as a Jupyter notebook application.
- Designed a clean web-based graphical user interface using Material UI components.
- Implemented a simultaneous visualization feature to enhance the software's practicality in research.
- Redesigned the abstraction layers of the software to improve modularity and performance.

Environmental & Ecological Engineering Department, Purdue University, IN

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 Developer, Part-time - Python, Tkinter, Pygubu

Jul 2019 - May 2020

- Developed techno-economic analysis software to analyze Critical Materials Institute's projects.
- Reconstructed the software's codebase using a modular approach to improve maintainability.
- Streamlined the user interface and added support for multiple workspaces to boost the software's usability.
- Collaborated with a graduate student to develop the software's functional specifications.
- Decided on all the software's technical design as the sole developer of the project.

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 using Glade Interface Designer.
- 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 University

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).

2019

2018

2018