MUHAMMAD RAZIQ RAIF RAMLI
https://www.raziqraif.com / mramli@purdue.edu

Education

Purdue University, West Lafayette, IN **Graduation:** *May 2022*
- **Major:** Bachelor of Science in Computer Science (in-major GPA: 3.59) **CGPA**: *3.68*
- **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*
- 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). *2019*
- Competed in the ACM ICPC: Malaysia National alKhawarizmi Programming Contest (12th place out of 43 participating teams). *2018*
- Competed in the Malaysian Computing Olympiad (top 30 out of about 500 participants nationally). *2018*