MUHAMMAD RAZIQ RAIF RAMLI

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Education

Purdue University, West Lafayette   Aug '18 - Present
- **Major:** Computer Science, BSc (in-major GPA: 3.59)   CGPA: 3.68
- **Minor**: Mathematics
- **Relevant Coursework:** Operating System, Software Engineering, Relational Database, Data Mining & Machine Learning, Analysis of Algorithms, Virtual Reality Technology, Competitive Programming

Employment

Rosen Center for Advanced Computing

Software Developer, Intern - Python, Jupyter, SQLite, GDAL   May '20 - Aug '20
- Rebuilt a geospatial visualization and analysis tool as a Jupyter notebook application.
- Implemented a simultaneous visualization feature which was not feasible in 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.
- Worked independently for the project with some guidance from a few research mentors.

Purdue EEE Department

Software Developer, Part-time - Python, Tkinter   July '19 - May '20
- Developed a techno-economic assessment software for the technology projects at Critical Materials Institute (CMI).
- Reimplemented the codebase in object-oriented structure.
- Simplified the user interface and added support for users to work in multiple workspaces.
- Developed a new software (concurrently) to evaluate projects at a different Technology Readiness Level (TRL).
- Was the sole developer for the software under the oversight of a graduate student.
- Worked as a volunteer (part-time) with a new student developer throughout Summer '20 (May '20 – August '20)

Software Projects

Fortune - ReactJS, Flask, Redux, Python, Typescript, PostgreSQL   2020
- Developed a web-based cryptocurrency trading game by using the ReactJS and Flask frameworks.
- Implemented admin functionalities, game management page, and game chat functionalities.
- Worked in an agile software development cycle with a team.

NinjaVR - 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 the program's fronted components.
- 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, 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   2019
  (1st place out of 7 participating teams).

Competitive Programming - C++, Java
- Participated in a competitive programming competition during Purdue AITP's Computing Challenge Day   2019
  (3rd place out of about 20 participants).
- Competed in the ACM ICPC: Malaysia National alKhawarizmi Programming Contest   2018
  (12th place out of 43 participating teams).
- Competed in the Malaysian Computing Olympiad (top 30 out of about 500 participants nationally).   2018

Award

- **PETRONAS Education Sponsorship Program** - A full-ride scholarship for undergraduate studies.   May '17 - Present
- **Discovery Park Undergraduate Research Internship (DURI)**   May '20 - Aug' 20