MUHAMMAD RAZIQ RAIF RAMLI

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Education

Purdue University, West Lafayette, IN *CGPA: 3.69*
- **Major:** Bachelor of Science in Computer Science (*Major GPA: 3.60*) *May 2022*
- **Minor:** Mathematics
- **Scholarship:** PETRONAS Education Sponsorship Program (Full-ride scholarship for overseas studies)
- **Relevant Coursework:** Software Engineering, Software Testing, Relational Database, Operating Systems, Compilers, Computer Networks, Data Mining & Machine Learning, Analysis of Algorithms, Virtual Reality Technology

Work Experience

Rosen Center for Advanced Computing, Purdue University, IN

Software Intern - *Python, Jupyter, SQLite, GDAL, Ipymaterialui, Ipyleaflet* *May 2020 - Aug 2020*
- Rebuilt a geospatial visualization and analysis software to expand its visualization capabilities
- Designed a streamlined UI/UX by utilizing Material Design components, restructuring software contents, and implementing a simultaneous visualization feature
- Acquired knowledge to process and visualize geospatial data by using GDAL library and ipyleaflet library
- Leveraged MVC architectural pattern in the software design to achieve high maintainability

Environmental & Ecological Engineering Department, Purdue University, IN

Software Developer, Volunteer - *Python, Tkinter, Pygubu* *May 2020 - Aug 2020*
- Mentored a new software developer by preparing onboarding materials and handling weekly meetings
- Provided insights for new feature developments and peer-reviewed coding implementations

Software Developer, Part-time - *Python, Tkinter, Pygubu* *Jul 2019 - May 2020*
- Developed a software suite to apply techno-economic assessment on Critical Materials Institutes' technology projects
- Re-engineered legacy codebase by employing better abstractions, enforcing code standards, and incorporating a RAD tool into the development process, allowing for ease of software maintenance
- Streamlined existing UI/UX design by removing unnecessary layers in user operations, adding support for multiple workspaces, and implementing a load/save mechanism

Software Projects

University Simple C Compiler (USCC) - *C++, LLVM* *2021*
- Building a compiler for a subset of C language by utilizing LLVM libraries
- Completed the recursive descent parsing, semantic analysis, and LLVM IR code-generation parts of the compiler

Network Simulator - C *2021*
- Programmed RDT 3.0, Go-Back-N, and Selective Repeat protocols into bare-bones network simulators
- Coded the packet queue; sender-side and receiver-side windows; and a delta list for servicing multiple packet timeouts with a single clock hardware

Fortune - *ReactJS, Flask, Redux, Python, Typescript, PostgreSQL, Docker* *2020*
- Built a web-based cryptocurrency trading game that operates on real-time cryptocurrency data
- Developed the game management page, in-game chat, and admin functionalities by implementing both the frontend components and backend APIs
- Collaborated in an agile software development cycle with a team of 6 developers

Fighter VR - *Unity, C#* *2019*
- Developed a virtual reality fighting game with Unity with a team of 3 developers
- Integrated enemy characters into the game by employing 3D models from Mixamo
- Programmed fighting logic between the player and enemy characters by leveraging Unity NavMesh components

Skills

Technology/ Framework: ReactJS, Flask, PostgreSQL, Git, Linux, Docker, Unity, Postman, Wireshark, JUnit
Programming Languages: Python, C, C++, Typescript, JavaScript, Java, C#, Arduino, R

Activities

Tracer FIRE
- Competed in the Forensic & Incident Response Exercise by Sandia National Laboratories *2019*
  (1st place out of 7 teams)

Competitive Programming - *C++, Java*
- Competed in a competitive programming competition during Purdue AITP's Computing Challenge Day *2019*
  (3rd place out of about 20 participants)
- Led a team of 3 in the ACM ICPC: Malaysia National al-Khawarizmi Programming Contest *2018*
  (12th place out of 43 participating teams)