

Muhammad Fathy Rashad

Computer Engineer

All Projects are linked on website
mfrashad.github.io

Work Experience

● **Software Engineer Intern (Backend)** | Fave

May 2018 - August 2018

Ruby - Rails - PostgreSQL - AWS EC2

- Fixed various bugs and refactored a large Rails app.
- Automated PDF report generation which saved 3+ days of work monthly.
- Wrote unit tests for Rails application.
- Developed a new Promo Code feature for an Admin Dashboard.
- Worked in Agile environment.
- Used various tools/services such as Jira, Sentry, CircleCI and AWS.
- Youngest intern at 17 years old.

● **Freelance Developer** | Self Employed

September 2018 - Ongoing

Jekyll - Wordpress - Rails - Arduino

- Worked with a web agency to develop e-commerce websites.
- Developed landing pages using JAM stack (Jekyll).
- Built a website with a custom CMS using Rails for a non-profit organization.
- Programmed a platooning vehicle robot using Arduino.

● **Mobile Developer (Part-Time)** | Universiti Teknologi Petronas

September 2019 - Ongoing

JavaScript ES6 - React Native

- Developed a mobile app iOASIS for UTP library with React Native.
- The app is available in Playstore and widely used by UTP students and staffs.
- Integrated the mobile app with existing UTP systems.

Projects

● **Bustime** | Live Bus Tracking App

JavaScript ES6 - React Native - Firebase - Google Maps API - Pusher

Bustime is a mobile app made with React Native that provides real-time location, route, and ETA of buses by tracking the driver phones. Google Maps API is used for geolocation, map display, and time estimation, Firestore for database, and Pusher for real-time updates.

● **Istaidd Website** | Custom CMS

Ruby - Rails - PostgreSQL - AWS EC2

A blogging website made from scratch using Ruby on Rails with a custom made Content Management System (CMS). The website is made for a non-profit organization ISTAID (Islamic Thought and Information for Da'wah).

● **Dot Hit** | 2D Android Mobile Game

C# - Unity3D

Dot Hit is a casual mobile game made with Unity3D game engine and have 100+ installs in Google Playstore.

● **Aide Glass** | Smart Glasses for Hearing Impaired

Python - Raspberry Pi - Firebase - Google Cloud Speech API

Aide Glass is a smart glasses that transcribe surrounding conversation using speech recognition technology to help the hearing impaired communicates.

● **Autonomous Quadruped Robot** | Robocon Malaysia 2019

C/C++ - Arduino - Circuitry


A 3D printed autonomous quadruped spider robot capable of walking, turning, and climbing obstacles made for Robocon Malaysia 2019. PID algorithm is used in the control system.

Contacts

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 mfrashad.github.io

Skills

Web Development



Ruby



Rails



Node.js



Express



React



HTML5



JavaScript



CSS3

Mobile Development



React Native



Unity3D

Embedded Development



C/C++



Raspberry Pi



Arduino

Others



Python



R



Matlab



Java



Git



Bash



Linux



AWS

Design



Photoshop



Xd



Illustrator

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Education

- **Universiti Teknologi Petronas** | CGPA 3.72
Bachelor of Engineering (Hons) Computer Engineering
September 2017 - September 2021
Dean's List in all semesters.

Competitions

- **APU Battle of Hackers 2019** | Rank 9, Finalist
Asia Pacic University - September 2019
Led and mentored 2 students to participate in an intersarsity cybersecurity Capture The Flag competition as UTP representative. Managed to rank 9 out of 50+ teams in Malaysia.
- **Reboot the Earth Hackathon** | Finalist
UN Technology Innovation Labs - August 2019
Developed a prototype of Zed.ai, an out of the box AI solution dedicated to combat against climate change. Zed.ai enables unskilled individuals to use robust AI tools against climate change.
- **AI and Big Data Challenge for Data Engineer** | Top 20
Asean Data Analytics Exchange - April 2019
Developed SNAP, a dashboard Rails application that predicts product sales and gives recommendation on asset management using linear regression.
- **3 Days of Code** | Top 5 Finalist
Multimedia University - April 2019
Built a working prototype of Bustime, a real-time bus tracking app that provides live location, routes, and time arrival of buses to the users by tracking the bus driver's phone.
- **Robocon Malaysia 2018** | Top 16 Team
Universiti Tenaga Nasional - April 2018
Participated as the main programmer for UTP Petrobot Team. Programmed an autonomous line following robot with PID control and capable of receiving and throwing a ball through a 3m hoop.

Activities

- **Founder & President** | UTP App Dev Club
2019 - Ongoing
Led a group of students to build applications, organized workshops to learn essential technical skills outside of the class syllabus, and participate in competitions.
- **Tech Manager** | DSC UTP
2019 - Ongoing
Founding member of UTP Developer Students Club (DSC), a program by Google Developers for university students. Built the official website, spoke for several workshops, and handled technical tasks of the club.
- **Technical Crew** | UTP Petrobot Club
2017 - Ongoing
Participated in robotic competitions, projects, and industrial visits. Conducted workshops and mentored new members in robotic projects.

Volunteer Experience

- **Head of Media** | Agricultural IoT Garden
August 2019 - Ongoing
Built a hydroponic garden with an IoT monitoring system for a local school in Perak. Designed T-shirt, flyers, and delegated other design tasks to committees.
- **Mentor & Speaker** | Raspberry Pi Workshop
September 2018
Presented and mentored participants about Raspberry Pi. Guided them from installation and setup to a finished project of a telegram bot controlled LEDs.
- **Asst. Head of Design** | Children Provision Charity
January 2018 - May 2018
Designed various posters, helped in task delegation and managing other committees, and coordinated with other departments to complete tasks.

Languages



English - Professional Working Proficiency



Malay - Native or bilingual proficiency



Indonesian - Native or bilingual proficiency

Interests



Cybersecurity



Machine Learning



Robotic



UI/UX



App Dev.



Game Dev.



Hackathon



Languages



Self-Learning