

Muhammad Firhard Roslan

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PROFILE

I am a full-time research student at the University of Sheffield currently in the first year. I will be working in the area of software testing focusing on fuzzing.

EDUCATION

- **University of Sheffield** Sheffield, UK
PhD. in Software Testing January. 2021 – Ongoing
 - **Research Area:** Fuzzing, Mutation Testing, Search-Based Testing
 - **Areas of Interest:** Improving propagation of fuzzers to find faults, Evaluating NoSQL schema using fuzzing techniques, NoSQL schema integrity.
- **University of Sheffield** Sheffield, UK
Master of Science in Software Engineering; Grade: Distinction September 2017 – September 2018
 - **Courses:** Testing and Verification, Agile Development, Cloud Computing, Software/Hardware Verification.
- **University of Nebraska-Lincoln** Lincoln, Nebraska, USA
Bachelor of Science in Computer Engineering; GPA: 3.431/4.000 August 2014 – May 2017
 - **Courses:** Electrical Circuits, Computer Architecture, Cryptography, Database, Data Structure & Algorithm
 - **Dean's List:** Fall '14, Fall '15 and Fall '16

EXPERIENCE

- **Oracle Corporation Malaysia** Kuala Lumpur, Malaysia
Software Engineer May 2019 - December 2020
 - **Full Stack Developer:** Working as a full stack software developer using Oracle JET framework for front-end, Spring Boot for the back-end, and Oracle Database for storing data. Following the right Software Principles.
 - **Sustaining Engineer:** Maintaining legacy system particularly related to Oracle Database and payment transactions.
- **The OAK Group, University of Sheffield** Sheffield, UK
Research Software Engineer September 2018 - January 2020
 - **Full Stack Developer:** Full stack NodeJS web developer focusing on real-time video chatting using SocketIO and WebRTC, storing information in MongoDB, handling deployment of NodeJS
 - **Android Developer:** Develop native Android application that would communicate with NodeJS for video chatting.
- **Cybersecurity Malaysia** Kuala Lumpur, Malaysia
Internship September 2018 - January 2020
 - **Security:** Analyze statically and dynamically vulnerabilities on a website.
 - **Software Principle:** Learn good security development standards and practices.
- **University of Nebraska-Lincoln** Lincoln, Nebraska, USA
Undergraduate Teaching Assistant for Embedded System Module January 2016 - May 2016
 - **Teaching Assistant:** Assisted students with the task at hand and grading, held consulting hours for students.
 - **Lab Assistant:** Help students related to Arduino and most of the sensors.

ACCOMPLISHMENT AND AWARDS

- **MSc. Dissertation (with Distinction): Ridesharing for Self Driving Car:** Focus on the scheduling of the self-driving car, shortest path optimization. Firebase as web service, Graphhopper as routing engine, OpenStreetMap as the web mapping service.
- **NIMBUS Lab:** Served as a web developer (back-end) on Extensible UAV Interface for Nebraska Intelligent MoBILE Unmanned Systems (NIMBUS) lab for senior design project
- **Honor Society:** Tau Sigma Honor Society, University of Nebraska-Lincoln
- **Scholarship Awarded:** Global Ambassador Scholarship Award, University of Nebraska-Lincoln (2014 - 2017) & MARA GrEP PhD Program, Malaysian Government (2021 - 2025)

PROGRAMMING SKILLS

- **Languages:** JavaScript, Java, Ruby, C, No-SQL, SQL, currently learning Go
- **Technologies:** React, Oracle-JET, MongoDB, SQLite, Git, Firebase, VS Code, Socket IO, IntelliJ, Eclipse