Muhammad Izzat bin Fadzlon

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EDUCATION

Nanyang Technological University (SCTP)   **Nov 2023 – Current**
Software Engineering
- Relevant skills: HTML, CSS, Javascript, Java, React, Spring, Maven, Springboot, DevOps, Containerizaton, React Native

Nanyang Technological University   **Aug 2018 – Aug 2022**
Mechanical Engineering (Robotics and Mechatronics Stream)
- CGPA 4.27/5.00
- Relevant modules: Intro to Computational Thinking, Robotics, Mechatronics System Interfacing, Realtime Software for Mechatronic Systems, Mechatronics Engineering Design

SKILLS

- Software: HTML, CSS, React, GIT, JavaScript, Java, C, C++, OOP, JIRA, Confluence, Agile, Python, VS Code, Blender, Arduino, Vector CANoe, IBM DOORS
- Languages: English(fluent), Malay (fluent)

PROJECTS

Personal Projects

SteamBot that automatically add/chat/trades with Steam users   **Jan 2023 –Mar 2023**
- Design a fully automated bot using Javascript and Steam APIs that automatically adds and trades with users.
- Automatically tracks and manages in-game currency to always display up-to-date currency information and ensure enough currency is available at all times.
- Included a chat function whereby steam users can ask the bot for help using certain prompts to allow for autonomous assistance.
- Achieved a 50% profit in 1 month of running the bot from trading with public Steam users.

University Academic Projects

Dyson x NTU Product Development Challenge   **Aug 2020 – Nov 2020**
- Conceptualized an original product under the mentorship of a Dyson engineer.
- Designed and built kitchen prototypes for a bicycle helmet that allows for easy signalling using signal lights, with the inclusion of HUD technology.

Mechatronics system competition to design an autonomous robot   **Sept 2019 – Nov 2019**
- Designed a robotic vehicle from scratch by interfacing Arduino microcontrollers, sensors and actuators in C.
- Used realtime concepts and multithreaded approach in designing the logic behind the robots movements.

WORK EXPERIENCE

Software Engineer, Continental Automotive   **July 2022 – Current**
- Ensuring API calls triggered by driver input are accurately received between different control units in the cars, such as digital clusters and head units.
- Debugging of test tickets received from customer by analyzing CAN traces.
- Usage of JIRA for ticket creation and allocation in the context of Scrum methodology.
- Development of new features through object-oriented programming while conducting unit test validation through GoogleTest using C/C++.

Lead Product Design, Amplefresh   **Aug 2021 – July 2022**
- Spearheaded the design and development of water-channelling conduits used in our first testbed situated at Bulim Square in collaboration with JTC.
- Developed technical animations using Blender, explaining key features of our testbed to clearly present to sub-contractors our structural design requirements.

Mechanical Engineer Intern, Continental Automotive   **Jan 2021 – May 2021**
- Assisted in characterization of smart materials used in generating haptic feedback and morphing surfaces with oscilloscopes and signal generators.
- Given full responsibility in self-learning Blender software for product animation of relevant prototypes, eventually being showcased during the Continental-NTU Corporate Lab inauguration.

Robotics Software Engineering Intern, Transforma Robotics   **May 2021-Sep 2021**
- Interfaced LiDAR sensors and built upon open-source ROS middleware to create an action server for Work at Height Painting Robot (WAHPR)
- Spearheaded the first prototype of a parking algorithm using relevant mathematical concepts for a robot guidance system to align the WAHPR prior to painting(C++)

AWARDS AND ACHIEVEMENTS

Dean's List, Nanyang Technological University   **Jul 2020 - Jul 2020**
- Achieved top 5% of cohort with minimum YGPA of 4.50 for AY2020-2021

James Dyson National Runner Up (Singapore)   **Jul 2020 - Jul 2020**
- Led and developed the design of water channeling conduits, from concept to deployment at our prototype vertical farm at Bulim Square.