Muhammad Izzat bin Fadzlon

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Github Repository: https://github.com/kiblykat
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EDUCATION

SkillsFuture Career Transition Programme (NTU SCTP)

Nov 2023 - Current

• Relevant skills: HTML, CSS, Javascript, Java, React, 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 steam Bot that automatically adds and trades users on Steam.
- Ability to auto-add and auto-trade conditionally with players based on a modifiable pricelist object.
- Automatically tracks and manages in-game currency from Team Fortress 2 within the bot's backpack 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 subcontractors 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.