Ryuji Kow

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EDUCATION

National University of Singapore   **Aug 2021 - June 2025(Expected)**
- Pursuing a Degree in Computer Engineering
- Cumulative Average Point (CAP): 4.50 / 5.00

WORK & INTERNSHIP EXPERIENCES

Feeveo, Intern   **Jan 2023 - March 2023**
- Involved in the design and prototyping of an Automated Ground Vehicle(AGV)
- Tasked to manage and integrate control systems on AGV

NUS, Teaching Assistant   **Jan 2023 - April 2023**
- Teaching assistant for CG2111A - Engineering Principles and Practices II
- Provide students with advanced knowledge in certain computer engineering concepts.
- Facilitate discussions and practical sessions to reinforce concepts.

Purely Natural Skincare, Co-Founder   **June 2022 - Present**
- Developed digital platforms on Shopify, Carousell, and Facebook
- Managed supply chain operations, including inventory control and logistics coordination.

Reactor School , Trainer and Facilitator   **Jan 2022 - June 2022**
- Conducted design thinking training programmes for secondary school students
- Facilitated hackathon programmes encouraging start-up ideas
- Motivated to deliver programmes effectively to students

High Achievers Training Consultancy(Tuition Center) , Intern   **May 2021 - July 2021**
- Conducted weekly lessons, focusing on the teaching of mathematical concepts and problem-solving skills.
- Prepared and delivered lesson plans, including the creation of worksheets and practice questions.
- Provided individualised attention to students to help them overcome learning obstacles.
- Monitored and evaluated students' performance and progress, providing feedback to parents.

High Achievers Training Consultancy , Trainer and Facilitator   **Dec 2020-June 2021**
- Developed communication, management, and team-building skills. Able to implement a variety of training programmes for multiple purposes.
- Imparted valuable life and study skills to students in over 10 different schools

PROJECTS

Autocare, Autonomous Solution for Transport of Blood Components
- Developing an autonomous solution for the transport blood components in partnership with Singapore General Hospital(SGH)
- Conducted extensive market research and interviews with doctors and nurses.
- By integrating advanced technologies, our system navigates the hospital environment, adheres to safety protocols, and frees up porters for essential patient care.
- Solution utilises SESTO magnus AMR with a custom payload designed to transport blood components safely and securely.

Big PC-Partpicker, CLI Application
- A Command Line Interface (CLI) application that streamlines the process of managing computer builds while verifying the compatibility of selected components.
- Built a simple interface that enables easy customization and organisation of PC builds, ensuring optimal performance and budget adherence.
- Enhanced customizability for advanced users to add custom pc parts to the list of available parts.

OIO, Musical Instrument
- Explored innovative methods of playing instruments.
- Ideated and Designed a unique musical instrument that utilizes physical discs containing music layers, allowing for the mixing of various tracks.
- Integrated PN532 RFID reader, NTAG 213 tags, mouse micro switches, Raspberry Pi 3B+, and breadboard.

FPGA Project, Creative application of concepts covered in module

- Integrated keyboard and PMOD screen with FPGA.
- Implemented Typeracer game with fixed phrase,measuring and displaying WPM on a seven-segment display.
- Provided real-time feedback with red highlighting for incorrect keystrokes and green highlighting for correct ones.
- Delivered an interactive and engaging typing experience with precise performance measurement.

Skills

Programming Languages

- C++, C, Python, Verilog, R, Java, Javascript, HTML, CSS

Hardware Competencies

- Arduino, Raspberry Pi, ,LiDAR , FPGA, Esp32, RFID, Stepper Motors(Modbus)

Other Competencies

- Git, Linux, Microsoft Office, Fusion360, Autodesk Eagle
- Languages: English, Chinese, Japanese