AARON ASHWIN RAJOO

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SKILLS

Technical skills: React, JavaScript, CSS, HTML, NodeJS, Java, Python, C, C#, C++

Interpersonal skills: Proactive, Inquisitive, Adaptable

WORK EXPERIENCE

May 2022 – Jul 2022
MACHINE LEARNING INTERN, MAKINO ASIA GROUP
Trained a Bidirectional Gated Recurrent Unit (BGRU) Neural Network model to predict final surface conditions and operation time of material for the Wire EDM (WEDM) machines.

Pre-processed data with various techniques like data cleaning, normalization, one-hot encoding, data inversion with pandas and NumPy, and formatted data to 3D Tensor inputs for ML.

Feb 2018 – Apr 2018
ELECTRONIC SYSTEMS INTERN, DEFENSE SCIENCE ORGANISATION (DSO)
Developed a prototype of an Alert System that detects anomaly and alert a hierarchy of subscribed users through Telegram Bot API.

PROJECT EXPERIENCE

Mar 2023 – Mar 2023
E-COMMERCE WEBSITE, (View project) – (GitHub)
Designed an E-Commerce bookstore to dynamically fetch from a mock database and allow users to browse, sort and cart items with React and JavaScript. A clean user experience is also attained through routing, hooks and deploying skeleton loading states between pages.

Feb 2023 – Mar 2023
PERSONAL WEBSITE, https://airrehn.github.io/
Independently took courses to learn HTML, CSS and JavaScript and worked on a personal project to build an E-Portfolio website.

Aug 2022 – Present
CERVICAL LANDMARK DETECTOR, NATIONAL UNIVERSITY OF SINGAPORE – NUH, (GitHub)
Worked on an AI-Computer Vision solution to automate and enhance first-level diagnosis of airway difficulty in patients.

Pre-processed a set of 2000 images with labels, then implemented semi-supervised learning with to iteratively retrain Convolutional Neural Network (CNN) models by pseudo-labelling more than 20,000 unlabeled images, to achieve a final predictive accuracy of 3% of relevant neck features.

Nov 2020 – Nov 2020
SCAMCHECK APPLCATION, NATIONAL UNIVERSITY OF SINGAPORE
Developed an iOS application with Xcode to tackle romance fraud by recognizing scam elements in messages to warn, prompt and assist users to take relevant actions.

Successfully detected and categorized scam elements in messages to 3 different levels of suspicion to warn, prompt, and assist users into taking the relevant actions.

EDUCATION

Aug 2020 – May 2023
National University of Singapore
Undergraduate in **Mechanical Engineering,** Minor in **Computer Science**
Current GPA: 4.21/5.00

Apr 2015 – May 2018
Ngee Ann Polytechnic
Diploma in **Engineering Science**
Cumulative GPA: 3.93/4.00

LEADERSHIP EXPERIENCES

Executive Committee – Quartermaster, NP Guitar Club   April 2015 – April 2018

- Performed, managed food catering, and handle ticket sales for biannual concerts of up to 400 people and facilitated training camps for over 200 members.
- Liaised with the school and external vendors to purchase and allocate equipment to a club of 60 students.
- Handled publicity and recruitment of 60 new members annually.

Ambassador – School of Engineering, SoE Rangers   April 2016 – April 2018

- Facilitated large and small-scale events such as open-houses and Math's Challenges organized for prospective secondary school students.
- Student leader for International Symposium on Advances in Technology Education (ISATE) 2017 to facilitate and share to various higher education institutes innovative teaching methodologies and practices in Ngee Ann Polytechnic.

COMMUNITY SERVICE

Ng Teng Fong General Hospital   April 2016 – Dec 2016

- Monthly visits to the hospital with a group from NP Guitar to perform for the warded patients.
- Performed for a well-being and healing concert organized by JurongHealth.

AWARDS

DSO Diploma Scholarship   Oct 2017 – May 2018