ALLYSA TAN LI YING

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EDUCATION

National University of Singapore — 2022
Business Analytics and Mathematics

National Junior College, Integrated Programme — 2015-2020
Valedictorian of Science Training and Research Programme (STaR)
H2 Physics, Chemistry, Mathematics, Economics, H3 Game Theory, H1 General Paper
Grade: 90 RP with H3 Distinction

EXPERIENCE

RPA Developer — Jan 2022 - Apr 2022
Housing and Development Board

- Created UiPath robot to automate repetitive administrative tasks, increasing efficiency
- Led the training for administration officers to use the robot and create their own robots in the future

Student Researcher — Jul 2020 - Jan 2021
Bioinformatics Institute, A*STAR

- Developed a computational model of the cytoskeletal network involved in muscle regeneration
- Worked closely with postdoctoral researchers to use model to achieve more efficient clean meat production

Computer Vision Intern — Sept 2019 - Dec 2019
Defence Science and Technology Agency

- Developed a Convolutional Neural Network to enhance efficiency of recycling processes

PROJECTS

Diameter-d Regular Graphs and their applications to Tournaments
Modelled tournaments as Graphs, then devised a method to create Diameter-d Regular Graphs with minimum edges to increase efficiency of tournaments. First half of project published in the Mathematical Medley.

CGA in real time
Built a prototype that creates Computer Generated Animation (CGA) based on a live feed. Achieved overall best project award at BuildingBloCS AI Winpetition.

Modelling the flow of plastic waste in oceans
As part of the International Research Exchange Programme in Cornwall, UK, we made use of the fourth-order Runge-Kutta method to study optimal strategies to reduce plastic waste in the oceans of Singapore and Cornwall.

SKILLS

Technical Skills	Python, R, C++, UiPath
Soft Skills	Research, Report Writing, Communication, Dedication

AWARDS

- NUS Global Merit Scholarship
- A*STAR Science Award (Secondary and JC)
- MOE Pre University Scholarship
- KSASF - Most Creative Research Award
- Singapore Mathematics Project Festival - Silver
- DSTA JC Scholarship