

GARY YANSEN

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EDUCATION

National University of Singapore (NUS)

Aug 2019 - May 2023

Bachelor of Science (Honours)

- Double Major in Data Science and Computer Science
- Relevant modules: Data Structures and Algorithms, Machine Learning, Operating Systems, Database Systems, Software Engineering

TECHNICAL SKILLS

- Programming Languages: Python, R, SQL, C, Java, JavaScript
- Tech Stacks: PostgreSQL, ReactJS, ExpressJS, Django
- Technologies: Git, Docker
- Others: Data Structures, Algorithms, Object-Oriented Programming

Work Experiences

Teaching Assistant | NUS

Aug 2021 – Present

- Teaching Assistant for CS2030 Programming Methodology II and CS2102 Database Systems.
- CS2030: Facilitated teaching of Object-Oriented programming, functional programming, and fundamental software engineering principles in Java.
- CS2102: Facilitated teaching of Relational Algebra, ER Diagram, SQL, Functional Dependencies and Normalization techniques.

Data Analyst Intern | RushOwl Singapore

June 2021 – Aug 2021

- Perform API calls to obtain data from various government sources for analysis.
- Understand the geospatial features of Singapore and explore the correlations with commute experience and daily operations.
- Research on the commute pattern of platform users and generate service personalization and improve user satisfaction.
- Introduced a new and faster method for transport planning and for studying locations that need additional transport infrastructure.

Analytics Intern | NUS

Dec 2020 – Jan 2021

- Analytics intern for a Maritime Analytics Research Project.
- Wrote scripts to conduct cleaning and processing of various maritime-related data (AIS, Vessels Stoppage Data) using Python.

- Analysed and conducted visualisations (vessels trajectories) to detect and remove noisy entries.
- Built a machine learning model using Adaptive Boosting Algorithm to predict whether a vessel will stop.

Projects

Meet Me in the Middle

- A simple web application that finds a fair central location given multiple starting MRT stations.
- Developed using Flask for backend and React for frontend.

NewAddressBook

- Developed a Java desktop app to help Singapore Secondary School teachers manage their contacts of students and colleagues, as well as keep track of upcoming meetings.
- Contributed production quality work to a medium-scale brownfield project.
- Technologies used: Java, JavaFX, Gradle, Junit, GitHub CI.

Fake News Classifier

- Programming language used: Python.
- Used Natural Language Processing (NLP) techniques and word embedding techniques such as TF-IDF Vectorizer and Word2Vec to convert texts into numerical vectors.
- Explored and utilized various classification models such as ensemble learning.

ADDITIONAL INFORMATION

- **Languages:** English, Mandarin, Bahasa Indonesia and Hokkien
- **Interests:** Outdoor activities such as hiking, kayaking.