Lee Yan Le Ryan

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EDUCATION

National University of Singapore **Aug 2022 - Present**
Bachelor of Science (Hons)

- Major in Data Science and Analytics
- Specialisation in Operations Research
- Minor in Computer Science
- CGPA: 4.39 / 5.0

TECHNICAL SKILLS

- Programming Languages: Python, Java, C++, C#, R, SQL
- Software: Microsoft Office Suite (Word, PowerPoint, and Excel), VSCode, Git
- Graphics: Photo Editing, Video Editing

EXPERIENCE

Digital Production Assistant, NUS, Singapore **Aug 2024 – Mar 2025**

- Collaborated with 3 professors and a production team to produce engaging educational videos on prompt engineering, generative AI and machine learning
- Contributed to courses published under NUS Blended Learning 2.0, allowing NUS professors and staff to learn more about recent advancements in AI and ML
- Revamped old lecture slides by integrating PowerPoint animations and transitions, synced recorded videos with slides using Camtasia, captioned videos using Descript

Teaching Assistant, NUS, Singapore **Aug 2024 - Nov 2024**

- Mentored 25 undergraduates in CS1010E, a course in NUS on computational thinking and problem-solving using Python
- Received 9 nominations for teaching excellence and rated 4.5/5 for overall teaching, slightly better than computing departments
- Designed custom slides, using animations for visual clarity to bridge learning gaps

PROJECTS

Detection of COVID-19 using Chest X-Ray Scans **Aug 2024 – Dec 2024**

- Conducted binary classification on 535 greyscale X-ray images
- Utilised three CNN models (ConvNet, ResNet18, DenseNet121) from PyTorch library
- Applied GradCAM and GradCAM++ to visualize decision-making regions
- Succeeded in detecting COVID-19 with 77.8% accuracy

Breast Cancer Analysis **Feb 2024 – Apr 2024**

- Conducted binary classification on 569 labelled samples
- Detected mislabels using feature engineering, clustering and logistic regression
- Utilised four Machine Learning models (LR, kNN, RF, SVM) from sklearn library
- Succeeded in detecting benign and malignant tumours with 96% accuracy

Orbital NUqueSt **May 2023 – Aug 2023**

- Developed a 2D top-down action-adventure game in Unity to gamify NUS courses
- Implemented quests and puzzles like N-Queens for computing courses to familiarize new undergraduates with course difficulty in a fun and interactive way
- Designed a unified enemy AI framework using inheritance, where each enemy type has unique implementations of movesets, behaviours and patterns
- Applied software engineering principles in back-end development
- Achieved the highest level of achievement (Artemis – Extreme), placing in the top 5%