YAN WEI

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EDUCATION

Nanyang Technological University (NTU), *Renaissance Engineering Programme, Singapore*   **Graduating Dec 2024**
Master of Science, Technology Management
Bachelor of Engineering Science, Computer Science
- Expected Honours (Highest Distinction), Cumulative GPA: 4.60/5.00
- Renaissance Engineering Programme Scholarship

Relevant Coursework: Software Engineering, Operating Systems, Data Science and AI, Data Structures and Algorithms, Database Systems, Wireless and Mobile Networks, Distributed Systems, Project Management, Financial Management

Imperial College London, *United Kingdom*   **Oct 2022 – Jun 2023**
Overseas Exchange Programme, Computing
Relevant Coursework: Computer Vision, Deep Learning, Reinforcement Learning, Computational Finance, Graphics, Robotics

WORK EXPERIENCE

DBS Bank Ltd, *Operations Intern, Singapore*   **May 2024 – Aug 2024**
- Contributed to the design and implementation of compliance checklists to facilitate the rollout of updated documentation guidelines for all AI and data use cases in the Operations department.
- Developed Python scripts to automate the validation and merging of multiple AI and data use case databases to create a consolidated database of 10,000+ AI use cases and models, streamlining data governance policy enforcement.
- Analysed the consolidated database to chart overall development progress of AI and data use cases in Operations, translating the insights gathered and discrepancies identified into an interactive dashboard using Tableau.

Rapid-Rich Object Search Lab, NTU, *Research Engineer Intern, Singapore*   **May 2022 – Jul 2022**
- Investigated the effects of using different image formats on the optimisation of state-of-the-art person re-identification models using PyTorch.
- Conducted a comprehensive survey of 30+ person re-identification datasets to shortlist gold standard datasets.
- Refined and manually annotated proprietary person re-identification datasets.

Tinkertanker Pte Ltd, *Software Developer Intern, Singapore*   **Mar 2020 – Jun 2020**
- Developed a 24-hour game development curriculum for the Unity game engine, tailored for secondary school students, featuring 12 interactive lessons on scripting, animation, navigation, and user interfaces.

RESEARCH EXPERIENCE

Undergraduate Research Experience on Campus, NTU, *Undergraduate Researcher, Singapore*   **Aug 2021 – Oct 2022**
- Developed a novel approach using machine learning for the integration of haematoxylin and eosin staining with spatial transcriptomics to investigate relationships between cell morphology, spatial context, and gene expression.
- Performed gene-set enrichment analysis on hepatocellular carcinoma tissue samples using QuPath and Python to enable single-cell spatial analysis of tumor-immune interactions, which was impossible with bioinformatics pipelines at the time.
- Collaborated with Institute of Molecular and Cell Biology under the supervision of Dr Cai Yiyu (NTU School of Mechanical and Aerospace Engineering).

ACADEMIC PROJECTS

Interactive Shape Modelling in Unity, *Final Year Project, NTU, Singapore*   **Aug 2023 – May 2024**
- Implemented hand tracking and gesture recognition in a custom shape modelling application to enable intuitive and interactive shape manipulation using the Leap Motion Controller and Unity game engine.

PUBLICATIONS

2022
- Yan W, Luong N, Lim J, *et al.* 1302 Spatial analysis of the tumor microenvironment using machine learning-enabled integrated morphology-transcriptomic cell phenotypes. *Journal for ImmunoTherapy of Cancer* 2022;**10**:doi: 10.1136/jitc-2022-SITC2022.1302

SKILLS

- **Languages:** Fluent in English and Mandarin
- **Technical Skills:** PyTorch, Python, Java, C#, C++, Unity, Git, Tableau