Liu Lanping

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EDUCATION BACKGROUND

University of New South Wales (UNSW)

Bachelor of Science (Computer Science) **| GPA: 3.0/4.0** **7/2018- 2/2022**

Bachelor of Science (Computer science and Engineering with Honours) **3/2022-12/2022**

Core Courses: Linear Algebra | Discrete Mathematics | Data Structures and Algorithms | O-O Design & Programming | Advanced C++ Programming | Algorithms & Programming Tech | Advanced Algorithms | Neural Networks, Deep Learning | Database Systems Implementation | Computer Graphics | Human-Computer Interaction |Computer Vision |

ACADEMIC EXPERIENCE

Scaling Blockchains using Layer-2 Solutions **1/2022-Present**

- Focused on the scaling issue on the blockchain, illustrated the possible routes to solve this problem, respectively hardware layer, layer 0, 1, 2 and explained the selection of Layer 2 based on the comparative analysis
- Analyzed the pros and cons of different Layer 2 solutions, including State channels, Plasma, and Rollups, and presented the reasons for the choice of Rollup
- Explored the different types of Rollup, and focused on the Zero-knowledge(Zk)-Rollups proof
- Identified issues with existing approaches like efficiency, the requirement of trusted set up, and data availability
- Working on the implementation of the ZKP-PlonK Algorithm with the in-depth analysis of advantages and disadvantages

COMP 3900 Computer Science Project **11/2021**

- Joined a 5-member team to create a web-based stock portfolio management system for financial investment in Python based on Flask and React; my contributions included:
  - Designed and implemented the main functionalities, including helping users discover new stocks, see comprehensive data of stocks and maintain their portfolios and watchlists.
  - Proposed and developed the novelty functionalities: watchlist sharing and collaboration, stock news, and stock comparison.
- Rated as **Distinction** for this project

Game Design and Development of Dungeon Legends **Time**

- Independently designed and implemented the Dungeon Legends in Java, achieved the functions of controlling character movement, collecting items, and realizing trigger mechanisms.
- Modified components in game design to enhance the player experience, including mechanics, feedback, pacing, and interface.

SKILLS & STANDARDIZED TESTS

Computer Languages/Software: C++| Python | Java | Linux operating system | PostgreSQL | Git

Languages: Mandarin (Native), English (Fluent)

GRE General: V: / Q: / AW: / Total: