

Hang Li

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Education

University of New South Wales

Feb 2024 – May 2027

BS in Computer Science

- Overall WAM: 88.8/100 (CS WAM: 91/100)
- **Coursework:** Computer Systems, Data Structures and Algorithms, Software Engineering

Projects

Zero-Knowledge Rollup Implementation

2024

- Implemented a simplified zk-rollup system for blockchain scalability, implementing circuits for EdDSA signature verification, Merkle tree account management, and transaction processing.
- Tools used: Circom, zkutil, snarkjs, Node.js, JavaScript, Solidity

Verkle Tree Implementation

2024

- Implemented a primal efficient blockchain data structure with IPA based polynomial commitment in rust, offering efficient proofs, reduced proof sizes, and improved scalability for distributed systems.
- Tools used: Rust

Real-Time Quiz Platform

2024

- Developed a real-time quiz platform backend that enables quiz management for admins and user participation. Implemented CI/CD pipelines for automated testing and deployment.
- Tools used: Node.js, TypeScript, Express.js, Vercel KV, Git

File Synchronization Tool

2024

- Developed an rsync-inspired utility that optimizes data transfer by transmitting only changes. Implemented efficient metadata processing, block comparison, and file reconstruction for synchronization.
- Tools used: C

Experience

Software Development Trainee

UNSW, Sydney

UNSW Software Development Society

May 2024 – Sept 2024

- Collaborated with team members to design and implement *Kuma*, a virtual study space application that allows users to set up and share 3D study environments, fostering live interactions between users.
- Integrated Agora WebRTC for voice/video calls, Spline for 3D web design, and React.js for frontend development.

Hackathon Team Member

UNSW Founders

Terrible Ideas Hackathon

Dec 2023

- Developed an application for appearance and emotion recognition, integrating OpenAI API for personalized feedback.
- Leveraged open source libraries for computer vision and text-to-speech (TTS) technologies to enhance user interaction.
- Collaborated with a team to create an innovative project in short time, focusing on user experience and real-time feedback.

Technologies

Languages: C, JavaScript, Typescript, Rust

Technologies: CI/CD, Git, Test-Driven Development