

Shangren Lu

shangren.lu@student.unimelb.edu.au | [shangren.lu](#)

Education

The University of Melbourne

July 2025 – Present

Bachelor of Science (In Progress)

- Majoring in Mathematics and Statistics

Work Experience

Infrastructure-as-a-Service Provider

2021 – 2024

Technical Support Consultant

- Provided technical support for networking and system architecture design and debugging.
- Enhanced practical skills in supporting technology infrastructure and solving real-world technical problems.

Projects

ShitDefinedNetwork

Feb 2023 – June 2024

Independent Researcher

- Designed, implemented, and operated a 5 Gbps capacity network managing real internet infrastructure (AS151192 & AS199684).
- Configured and maintained BGP connections to upstream providers and peers.
- Administered IPv6 routing and network telemetry systems for performance monitoring.
- Developed custom networking software and optimized traffic flows.
- Created looking glass website for visualization.

Skills

Programming Languages

- Rust, C, C++, Python, Shell Scripting, Rocq, Lean4

Web Development

- React, Next.js, Tailwind CSS

Networking

- IPv6, BGP, Wi-Fi, Switching, SDN

Hardware & Systems

- FPGA, RISC-V, Linux, Git, CI/CD

Cloud Platforms

- AWS, GCP, Azure

Research Interests

- Microarchitecture and computer systems design
- Computer networking and distributed systems
- Parallel computing and high performance computing
- Category theory and mathematical foundations

Last Updated in 2025-07-25