

Hongting Liu

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PROFESSIONAL SUMMARY

Software Engineer with a master's in Computer Science from University College London. Skilled in Python, Node.js, and MySQL, with expertise in building and scaling distributed systems, optimising high-throughput databases, and deploying caching for low-latency performance. Strong knowledge of networking (TCP/IP, DNS, Load Balancing) and production engineering (Linux, Docker, Kubernetes, CI/CD, monitoring). Adept at troubleshooting, incident response, and enhancing reliability in large-scale environments.

EDUCATION

University College London MSc in Computer Science: Robotics and Computation (Merit) Key Modules: Distributed Systems, Applied Deep Learning, Robotic Sensing, Multi-Agent Systems	London, UK Sep. 2023 - Jun. 2024
University of Sussex BSc in Computer Science: Artificial Intelligence (2:1 Honours) Key Modules: Computer Vision, NLP, Database Systems, Adaptive Systems, Machine Learning	Brighton, UK Sep. 2018 - Jun. 2023

TECHNICAL SKILLS

Networking & Systems: TCP/IP, DNS, Load Balancing, Linux, Docker, Kubernetes, Redis, MySQL
Programming: Python, SQL, C#, JavaScript
Production Engineering: CI/CD, Distributed Systems, Monitoring (Prometheus, Grafana), Incident Response
Machine Learning (Secondary): PyTorch, TensorFlow, OpenCV, scikit-learn

WORK EXPERIENCES

GroupMe Ltd. Software Engineer	London, UK Feb. 2024 - Jun. 2024
<ul style="list-style-type: none">● Scaled real-time push infrastructure for BuyMee go, supporting thousands of concurrent users and improving system reliability under peak traffic.● Optimized MySQL database and back-end architecture, reducing latency by 30% and enabling high-throughput operations in production.● Implemented monitoring and fault-tolerance mechanisms, improving incident response and ensuring service availability.● Worked with UX/UI, product, and QA teams to implement new features; conducted A/B testing and performance monitoring to ensure smooth integration.	
Guangdong Excellent Gas Group Investment Co., Ltd. Back-End Engineer Intern	Guangdong, China Jun. 2021 - Sep. 2021
<ul style="list-style-type: none">● Designed scalable back-end services with Python and Node.js, reducing response latency by 25% and improving data pipeline stability.● Deployed Redis caching for high-frequency queries, boosting throughput and contributing to a 15% increase in system reliability and customer retention.● Developed automated scripts to monitor server health, track errors, and produce weekly performance reports, enabling proactive maintenance and reducing downtime.	

PROJECT EXPERIENCES

University College London AI Scene Synthesis System	Jun. 2024 - Sep. 2024
<ul style="list-style-type: none">● Distributed Pipeline Development: Designed and implemented a distributed inference pipeline with the Groq AI API, reducing processing latency by 20% and improving system scalability.● Data Collection & Optimisation: Collected and analysed input scene data to refine model predictions; used batching and parallel processing to improve throughput.● Performance Evaluation: Measured system latency and output quality across multiple scenarios, producing actionable insights for further AI model tuning.	
University of Sussex Sound-Navigation 3D Game	Dec. 2022 - Apr. 2023
<ul style="list-style-type: none">● Low-Latency Audio Processing: Implemented real-time audio feedback loops in Unity, optimising sound signal processing for accessibility use cases.● User Testing: Collected player interaction metrics, including reaction times and navigation efficiency, to evaluate audio-guided gameplay.● System Robustness: Tested and adjusted audio algorithms across different hardware, ensuring consistent performance and reliable accessibility support.	