

EDUCATION

Xi'an Jiaotong-Liverpool University (XJTLU)	Sep 2023 - Present
BSc Applied Mathematics	Suzhou, China
- Overall Weighted Average: 83/100 — First Class Relevant STEM Module Average: 92.6/100 - Stage 3 Weighted Average: 90/100	

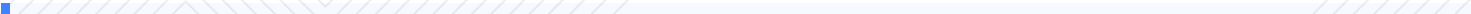
RESEARCH BACKGROUND

Foundations of Riemann Surfaces	Jun 2025 - Aug 2025
Summer Undergraduate Research Fellow; XJTLU	
Supervisor: Dr Jie Fei	
- Studied the fundamental topological and analytic concepts of Riemann surfaces and delivered presentations primarily on Riemann tori. - Co-authored a comprehensive group poster on the programme's main topics, selected as an Excellent Poster (top 20%).	
Differential Manifolds Reading Seminar	Sep 2025 - Feb 2026
Participant; XJTLU	
Seminar Leader: Dr Jinsong Xu	
- Studied <i>A Visual Introduction to Differential Forms and Calculus on Manifolds</i> by J. P. Fortney, with emphasis on the geometric intuition underlying differential forms. - Prepared and delivered technical presentations, explaining definitions and proof details and leading discussions within the reading group.	
Hyperbolic Manifolds	Jul 2025 - Present
Research Assistant; XJTLU	
Supervisor: Dr Fangting Zheng	
- Adapted an open-source C codebase to meet project-specific computational requirements and maintained the associated software environment. - Formulated and investigated high-dimensional nonlinear systems in Mathematica arising from geometric orthogonality and hyperparallelism constraints.	
Generalized Quantum Conditional Entropies	Jun 2026 - Present
Visiting Undergraduate Researcher; Centre for Quantum Technologies, National University of Singapore	
Supervisor: Prof Marco Tomamichel; Mentor: Dr Milad M. Goodarzi	
- Studied a family of generalized quantum conditional entropies, focusing on their duality, data-processing, limiting, and optimization properties. - Proved the converse direction of a known duality theorem by constructing suitable states and deriving necessary parameter constraints, thereby establishing the exclusivity of the duality relations. - Derived general formulas for the conditional entropy of product and pure states, analysed some boundary limit. - Currently co-authoring a research manuscript integrating these results with complementary work on the sharpness of the data-processing region.	

AWARDS

Silver Medal Winner in the 2024 University Physics Competition.	Dec 2024
2024/25 University Academic Achievement Award(Top 10%)	Jul 2024
2025/26 and 2026/27 University Academic Excellence Award(Top 5%)	Jul 2025 and Jul 2026

SKILLS LIST



Programming: Python, C/C++, Java | Scientific Computing: Mathematica, Maple
Research Tools: LaTeX, Overleaf | Formalisation: Lean

