

TIANQI FENG

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EDUCATION

The University of Melbourne	Mar 2020 — Nov 2024
<i>Master of Science in Mathematics and Statistics (Pure Mathematics)</i> — WAM: 93.9	
• Master's Thesis: Split Polynomials and the Sullivan Conjecture. Supervised by Diarmuid Crowley	
<i>Bachelor of Science in Mathematics and Statistics (Statistics/Stochastic Processes)</i> — WAM: 95.6	
<i>Diploma in Languages (Japanese)</i> — WAM: 85.3	(WAM = Weighted Average Mark)
Monash University	Feb 2019 — Dec 2019
<i>Monash University Extension Program</i>	
Scotch College	Feb 2014 — Dec 2019
<i>Dux of 2019</i> — ATAR: 99.95	(ATAR = Australian Tertiary Admission Rank)

SEMINAR PARTICIPATION

Geometric Topology Reading Group	2024
<i>Co-organiser and speaker</i>	
• Topics: Topological K-theory, Bott Periodicity, Poincaré Duality	

AWARDS

Daniel Curdie Scholarship	2023
<i>The University of Melbourne</i>	
E.R. Love Prize	2023
<i>The University of Melbourne</i>	
Dean's Honours List — Bachelor of Science	2020 & 2021 & 2022
<i>The University of Melbourne</i>	
John Macfarland Exhibition	2021
<i>The University of Melbourne</i>	
Melbourne Chancellor's Scholarship	2020
<i>The University of Melbourne</i>	
Dux of 2019	2019
<i>Scotch College</i>	
Premier's VCE Awards	2019 & 2020
<i>Mathematical Methods (2019), Top All-Round VCE High Achiever (2020)</i>	

TEACHING EXPERIENCE

Private Tutoring	Feb 2020 — Present
<i>VCE subjects, individual tutoring online and face-to-face</i>	

LANGUAGES

English	Mandarin Chinese	Japanese	Latin
<i>Native</i>	<i>Native</i>	<i>Proficient</i>	<i>Familiar</i>

PROGRAMMING EXPERIENCE

C, C++, Rust, Haskell, Python, \TeX & \LaTeX , JavaScript (familiar)

PROJECTS

Monte Carlo Path Tracer – CUDA/C++
<i>GPU based path tracer implementing the Monte Carlo algorithm to simulate light transport.</i>
<i>Supports diffuse and specular reflection/transmittance, translucent materials, and multiple importance sampling.</i>
Image Decomposition using Colour Unmixing – Python
<i>Implementation of colour unmixing algorithm that decomposes images into monochromatic layers.</i>
<i>Based on 10.1145/3429341.3429354 and 10.1145/3072959.3002176</i>