

ANCHIT MISHRA

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+1 (548) 333-1782

Waterloo, Ontario

EDUCATION

University of Waterloo

PhD. in Computer Science

Supervisors: Profs. Matthew Brehmer, Oliver Schneider and Daniel Vogel

expected 2028

Grade: 91%

University of Waterloo

M.Math. Computer Science (Thesis)

Supervisors: Profs. Oliver Schneider and Daniel Vogel

2024

Grade: 94.3%

University of Hong Kong (HKU)

B.Eng. Computer Science (First Class Honors)

Supervisors: Profs. Giulio Chiribella and Kenneth Wong

2022

GPA: 3.95/4.30

RESEARCH EXPERIENCE

University of Waterloo

Personalizing Haptics Through Conversation

Waterloo, CA

Sept 2022 - Sept 2024

- Developed an LLM-based conversational interface for personalizing haptic experiences.
- Examined whether conversational personalization was usable along with qualitative insights into the use of haptics-related language to inform a model for conversational interface design.
- Also worked on VR-based simulations for neuro-rehabilitation techniques incorporating tactile feedback to improve motor learning effects.

University of Hong Kong

Spinal Deformity Progression Prediction

Hong Kong

Sept 2021 - Apr 2022

- Final year capstone research project in collaboration with the HKU Vision Lab and the HKU AIMed Lab.
- Developed deep learning models to identify spinal deformity from biplanar X-ray scans.
- Implemented a modified version of UNet to perform semantic segmentation from a small X-ray scan dataset.
- Created a visualization tool using VTK to reconstruct a 3D view of the spine from orthogonal X-ray perspectives (anterior-posterior and lateral) and segmentation maps.

University of Waterloo

The Haptiverse Platform

Waterloo, CA

Jun 2021 - Aug 2021

- Co-developed a web-based data platform known as the Haptiverse for sharing and reuse of haptic assets between researchers and professionals.

University of Hong Kong

Measuring Quantum Incompatibility

Hong Kong

Jan 2021 - Aug 2021

- Co-developed a measure of Quantum Incompatibility known as Mutual Eigenspace Disturbance (MED) - constructed proofs for bounds, robustness to noise, and generalization from two to n measurements based on MED.
- Programmed simulations on IBM Qiskit to test out computational procedures using MED.
- Implemented K-Medoids clustering in Python(SKLearn) using MED as the distance function to demonstrate a novel machine learning application.

TEACHING EXPERIENCE

University of Waterloo

Waterloo

Teaching Assistant, Instructional Apprentice

Sept 2022 - Present

- CS349 - User Interfaces, CS135 - Designing Functional Programs in Racket

University of Hong Kong

Hong Kong

Student Teaching Assistant

Sept 2020 - May 2022

- ENGG1340 - Computer Programming II, COMP2396 - Object Oriented Programming

HONORS AND AWARDS

1. International Doctoral Student Award (2024-): CA\$15,420 per year awarded to outstanding international students commencing PhD studies at the University of Waterloo.
2. Mitacs Globalink Graduate Fellowship (2022-23): CA\$15,000 awarded to outstanding former Mitacs Globalink Research Internship alumni pursuing graduate studies in Canada.
3. International Master's Award of Excellence (2022-23): CA\$2,500 awarded to outstanding international students commencing studies at the University of Waterloo.
4. Dean's List (2019-22): Awarded to top 10% of students in the undergraduate engineering cohort at the University of Hong Kong.

PUBLICATIONS

Eugene Kukshinov, Federica Gini, **Anchit Mishra**, Nick Bowman, Brendan Rooney and Lennart Nacke. 2025. Seeing is not Thinking: Testing Capabilities of VR to promote perspective taking. (*conditionally accepted as IEEE VR 2025 + TVCG paper*)

Ning Gao, Dantong Li, **Anchit Mishra**, Junchen Yan, Kyrylo Simonov, and Giulio Chiribella. 2023. Measuring Incompatibility and Clustering Quantum Observables with a Quantum Switch. *Physical Review Letters* 130, 170201.

WORKSHOPS

Bibhushan Raj Joshi, Sandeep Kollannur, **Anchit Mishra**, Tommy Nguyen, and Oliver Schneider. Haptic Playground: Empowering Inclusive Haptic Design for Everyone. (*CHI 2024*)

PROFESSIONAL EXPERIENCE

UR2PhD - Computing Research Association

Waterloo, CA

Graduate Mentor

Sept 2023 - Dec 2023

- Mentored two early undergraduate students for a research project.
- Introduced HCI research concepts, such as study design, user flow development and prototyping.

OliveX

Cyberport, Hong Kong

Intern - Machine Learning Engineer

Dec 2020 - Jan 2021

- Developed an end-to-end machine learning pipeline for data scraping, storage and annotation on Amazon Web Services (Lambda + S3 + Sagemaker)
- Implemented an image scraper using Selenium and Google Chrome (headless)