Patrick Lee

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patricklee@cs.toronto.edu

Education

PhD, Computer Science
University of Toronto (UTSG) 2026-present
Concentration: Computer Science
Supervisor: Carolina Nobre

MSc, Computer Science 2024-2026
University of Toronto (UTSG)
Concentration: Computer Science (Information & Data Visualization)
Supervisor: Carolina Nobre
Dissertation: "A Critical Perspective on LLM-Powered Qualitative Analysis Tools"

BSc, Cognitive Science 2018-2023
University of British Columbia (UBC)
Concentration: Computational Intelligence & Design (Computer Science Stream)
Dissertation: "Data Pipelining in *Teleoscope*"

Publications

Lee, P. Y. K., Bo, J. Y., Zhao, Z., Aoyagui, P. A., Varona, M., Anderson, A., Kuzminykh, A., Chevalier, F., & Nobre, C. (2026). Negotiating Relationships with ChatGPT: Perceptions, External Influences, and Strategies for AI Companionship. *arXiv preprint arXiv:2601.13188*.

Lee, P. Y. K., Bucci, P., Foord-Kelcey, L., Singh, A., & Beschastnikh, I. (2026). Crystallizing Schemas with Teleoscope: Thematic Curation of Large Text Corpora on Reddit. In *Proceedings of the 2026 CHI conference on human factors in computing systems* (pp. 1-13).

Ye, R., Huang, O., **Lee, P. Y. K.,** Liut, M., Nobre, C., & Kong, H. K. (2026). Reflexis: Supporting Reflexivity and Rigor in Collaborative Qualitative Analysis through Design for Deliberation. In *Proceedings of the 2026 CHI conference on human factors in computing systems* (pp. 1-13).

Ye, R., **Lee, P. Y. K.,** Varona, M., Huang, O., & Nobre, C. (2025, June). Scholarmate: A mixed-initiative tool for qualitative knowledge work and information sensemaking. In *Adjunct Proceedings of the 4th Annual Symposium on Human-Computer Interaction for Work* (pp. 1-7).

Ye, R., Varona, M., Huang, O., **Lee, P. Y. K.**, Liut, M., & Nobre, C. (2025). The Design Space of Recent AI-assisted Research Tools for Ideation, Sensemaking, and Scientific Creativity. *arXiv preprint arXiv:2502.16291*.

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Huang, O., **Lee, P. Y. K.**, & Nobre, C. (2025). From Reality to Recognition: Evaluating Visualization Analogies for Novice Chart Comprehension. *Comput. Graph. Forum* 44, 3 (2025).

Huang, J., Ma, N. F., Rivera, V. A., Somani, T., **Lee, P. Y. K.**, Mcgrenere, J., & Yoon, D. (2024). Design Tensions in Online Freelancing Platforms: Using Speculative Participatory Design to Support Freelancers' Relationships with Clients. *Proceedings of the ACM on Human-Computer Interaction*, *8*(CSCW1), 1-28.

Lee, P. Y. K., Ma, N. F., Kim, I. J., & Yoon, D. (2023). Speculating on risks of AI clones to selfhood and relationships: Doppelganger-phobia, identity fragmentation, and living memories. *Proceedings of the ACM on Human-computer Interaction*, *7*(CSCW1), 1-28.

Conference/Workshop Presentations

P. Y. K. Lee, C. Nobre, 2025, "Scaffolding Cooperative Knowledge Sharing using Personalized, Embodied GenAI Agents", *the 28th ACM Conference On Computer-Supported Cooperative Work and Social Computing (CSCW 2025)*, Bergen, Norway, October 18-22.

O. Huang, P. Y. K. Lee (co-presented)**,** C. Nobre, 2025, "From Reality to Recognition: Evaluating Visualization Analogies for Novice Chart Comprehension", *the 2025 Eurographics Conference on Visualization (EuroVis 2025)*, Luxembourg City, Luxembourg, June 2-6.

P. Y. K. Lee, N.F. Ma, I.-J. Kim, D.W. Yoon, 2023, "Speculating on Risks of AI Clones to Selfhood and Relationships: Doppelganger-phobia, Identity Fragmentation, and Living Memories", *the 26th ACM Conference On Computer-Supported Cooperative Work and Social Computing (CSCW 2023)*, Minneapolis, MN, USA, October 14-18.

Honors, Awards, & Scholarships

Natural Sciences & Engineering Research Council of Canada (NSERC) Canada Graduate Scholarship - Master's (CGS-M)	2025
Bill Aiello Memorial Award in Computer Science	2023
Andrew Wade Memorial Award in Visual Analytics	2023
Academic Award of Excellence in Computer Science	2023
Undergraduate Teaching Assistant Award	2023
Natural Sciences & Engineering Research Council of Canada (NSERC) Undergraduate Student Research Award (USRA)	2023

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Rick Sample Memorial Award in Computer Science 2021

Natural Sciences & Engineering Research Council of Canada (NSERC) 2020
Undergraduate Student Research Award (USRA)

British Columbia District Scholarship (Community Service) 2018

British Columbia District Scholarship (Fine Arts) 2018

Horatio Alger Association Undergraduate Scholarship 2018

Teaching Experience

University of Toronto, Department of Computer Science 2024-present
Teaching Assistant

- Held lectures, office hours, and co-ordinated assessments and junior teaching assistants for:
    - CSC 316: Data Visualization (incl. lead TA appointment)(3 semesters)
    - CSC 196: Great Ideas in Computer Science (1 semester)
    - CSC 110: Foundations of Computer Science I (1 semester)
    - JSC 270: Data Science I (1 semester)

University of British Columbia, Department of Computer Science
Student Directed Seminar Coordinator 2023

- Developed curriculum for and taught CPSC 490A: Computational Intelligence and Design, a 400-level seminar course

Teaching Assistant 2019-2023

- Held lectures, tutorial sessions, lab sessions, and office hours for the following courses:
    - COGS 300: Understanding and Designing Cognitive Systems (1 semester)
    - CPSC 320: Intermediate Algorithm Design and Analysis (2 semesters)
    - COGS 200: Introduction to Cognitive Systems (3 semesters)
    - CPSC 110: Computation, Programs, and Programming (3 semesters)
    - CPSC 103: Introduction to Systematic Program Design (1 semester)

Professional Experience

D-Lab, University of British Columbia 2020-2023
UI/UX Researcher

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Investigated the ethical implications of a speculative class of technologies termed AI clones that mimic the likeness of real-world individuals. Conducted user interviews and performed qualitative analysis to unearth themes in participant responses.

Samsung R&D Canada 2020-2021

Junior Cloud Operations Engineer

Performed technical and statistical analysis of DevOps workflows to enhance and complement existing integration pipeline tech stacks. Developed monitoring and analytics dashboards for microservice workload observation. Orchestrated cloud containerization solutions using Docker/Kubernetes in Samsung Pay infrastructure.

CiTR 101.9 FM 2019-2020

Web Developer

Designed and implemented dashboards for tracking radio programming activities.

Service/Volunteering

University of Toronto Graduate Application Assistance Program (GAAP)	2025
University of Toronto Dynamic Graphics Project CS Academy	2025-present
UBC Cognitive Systems Tri-Mentoring Program	2021-2026
University of Toronto Hart House Mentorship Program	2024-2025
UBC Science Peer Academic Coaches	2019-2020
UBC Science Undergraduate Society	2018-2019

Extracurriculars

Massey College Book History & Print Culture Printing Fellow	2026-present
Massey College Junior Fellow	2025-present
CUPE 3902 Departmental Steward	2025-present
University of Toronto Run Club	2024-present

Technical Skills

- Qualitative Analysis (User interviews, focus groups, transcript analysis, qualitative coding, etc.)
- UI/UX Design and Prototyping (Figma, Miro, Photoshop, etc.)
- Data Visualization (D3)
- Data Science/Machine Learning (Python, UMAP)
- Automation and Cloud Architecture (AWS, Jenkins, Terraform, Docker, etc.)

Professional Affiliations

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- Human Interaction Visualization Lab, UTSG — 2024-present
- Sensory Perception & Interaction Research Group, UBC — Summer 2023
- Multimodal User Experience Research Group, UBC — 2021-2023
- Systopia Lab, UBC — Summer 2022

References

Professor Carolina Nobre
Assistant Professor, Department of Computer Science, UTSG
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Professor Ivan Beschastnikh
Associate Professor, Department of Computer Science, UBC
bestchai@cs.ubc.ca

Professor Dongwook Yoon
Associate Professor, Department of Computer Science, UBC
yoon@cs.ubc.ca

Professor Christopher Mole
Programme Chair in Cognitive Systems, Department of Philosophy, UBC
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