Eugenie Y. Lai

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Education	**University of British Columbia**, Vancouver, BC, Canada	September 2015-Present
	Bachelor of Commerce	Graduation: May 2021

Specialization: Combined Major of Business and Computer Science with Co-op
GPA: overall 4.0/4.0 (90%); CS-only 4.0/4.0 (92%)

Awards

2020 Natural Sciences and Engineering Research Council of Canada (NSERC) Undergraduate Student Research Award (USRA) – $4,500
2020 UBC CS Rick Sample Memorial Research Award – $2,500
2019 IVADO/Mila Deep Learning Winter School Scholarship – $500
2019 UBC Sauder School of Business Kenneth G. Young Memorial Scholarship (ranked 8/693) – $800
2018 UBC Sauder School of Business Scholarship (ranked 3/659) – $2,370
2018 UBC Trek Excellence Scholarship (top 5% with a 90+% course load) – $1,500

Publications

O. AlOmeir, **E. Y. Lai**, M. Milani, and R. Pottinger. *Summarizing Provenance of Aggregation Query Results in Relational Databases.* [Short paper]. To appear in IEEE International Conference on Data Engineering, 2021 (ICDE '21).

O. AlOmeir, **E. Y. Lai**, M. Milani, and R. Pottinger. *Pastwatch: On the Usability of Provenance Data in Relational Databases.* [Short paper]. IEEE International Conference on Data Engineering, 2020 (ICDE '20): 1882-1885.

On-Going Work

QueryTeller: Sequence-Aware Query Recommendation Using Deep Learning.

Presentations

Developing a Data-Driven Electric Vehicle Strategy in Surrey, BC, Canada. [Co-presented]. Special Interest Group on Knowledge Discovery and Data Mining, Social Impact Session, 2020 (SIGKDD '20).

Maximizing Utilization of Electric Vehicle Charging Infrastructure in Surrey, BC Using a Data-Driven Model. [Co-presented]. UBC Multidisciplinary Undergraduate Research Conference, 2020.

UBC Computer Science Undergraduate Program Evaluation and Renewal. [Co-presented with Dr. Rachel Pottinger]. UBC Board of Governors Meeting, 2020.

Facilitating Users with SQL Query Formulation. UBC Undergraduate Three-Minute Thesis Competition, 2019.

Research Experience

UBC Data Management and Mining Lab	May 2019-Present

Research Volunteer and Intern (Since May 2020) with Dr. Rachel Pottinger
- Contributed to project ideation, the implementation of the backend system, and the experiments for two short-paper projects as the second author.
- Currently leading a team of four on a query recommendation project that applies concepts of machine learning to recommend customized SQL queries using query workloads.

UBC Sauder Information Systems Division	July 2019-August 2020

Research Assistant with Dr. Arslan Aziz, Dr. Gene Lee
- Used causal inference methods to evaluate the impact of online platform policy changes.
- Applied NLP techniques, e.g., TFIDF, n-grams, doc2vec, for matching and sentiment analysis.

UBC Data Science for Social Good Program	Summer 2019

Research Intern with Dr. Raymond Ng, Dr. Kevin Lin
- Partnered with the Environmental Sustainability Advisory Committee of the City of Surrey, BC to guide the development of the Surrey Electric Vehicle Transformation Strategy.
- Used statistical and machine learning models to understand potential electric vehicle consumers and classify communities into groups such as current growth and high potential.
- Enabled data-driven city planning by helping the city select 20 curbside charger locations for a federal funding proposal in September 2019.

Grad Course Projects	**CPSC 530L AI Social Impact** with Dr. Kevin Leyton-Brown	Spring 2020

CPSC 530L AI Social Impact with Dr. Kevin Leyton-Brown — Spring 2020
- Worked on a team project that uses deep learning techniques to improve irrigation strategies in agriculture as a collaboration with ecohydrologists in UBC Earth and Ocean Sciences.
- Defined an interdisciplinary research problem from scratch by looking into real-world issues, narrowing down project scope, exploring feasibility, and soliciting domain experts' view.
- Extracted, explored, and processed 60GB NASA satellite data used in modelling.

COMM 635 Causal Inference in Information Systems with Dr. Arslan Aziz — Spring 2020
- Used difference-in-difference and fixed effects to evaluate the impact of online platform policy changes on incentivized reviews in small electronic products, e.g., batteries and screen protectors.
- Proved and validated with robustness check that after Amazon's ban on incentivized reviews, the number of unnatural reviews maintained while their characteristics became more similar to natural reviews, providing a proof-of-concept for evaluating platform-wide policy effects.

Industry Experience

Statistics Canada Ottawa Headquarter — September 2017-April 2018
Software Developer Intern
- Implemented a web service application embedded in a toolbox using technologies such as C#, JavaScript, SQL, ASP .NET and exceeded clients expectations by optimizing jQuery widgets.
- Designed and developed a Windows Service application and obtained positive feedback from clients by effectively communicating the client needs and executing tasks efficiently.
- Obtained a full-time offer from the Statistics Information System Division (SISD) executive team by demonstrating strong self-learning skills and work ethic.

Other Experience

UBC CS Undergraduate Program Renewal Project, *Admin Assistant*	August 2019-August 2020
UBC CPSC 304 Introduction to Relational Databases, *Teaching Assistant*	Summer 2019

Community Involvement

SIGMOD 2020, *Student Volunteer*	June 2020
UBC Data Science for Social Good Program, *Mentor*	June 2020
UBC CS Student Society (CSSS) Coffee Chat, *Mentor*	March 2020-May 2020
UBC CS Tri-Mentoring Program, *Mentor*	September 2018-April 2019
Greater Vancouver Regional Science Fair, *Lab Volunteer*	April 2017
Vancouver Learning Buddy Network, *Math Tutor Volunteer*	January 2017-April 2017
UBC YOURS Club, *IT Team Executive*	October 2015-April 2016

Programming

Python, R, JavaScript.

References

Available upon request.