LAUREN FRATAMICO

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Data Scientist • QI-Leap Inc.
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EDUCATION

University of British Columbia   *February 2016*
Master of Science, Computer Science

University of California, Berkeley   *May 2013*
Bachelor of Arts, Computer Science

INDUSTRY EXPERIENCE

QI-Leap Inc.   July 2016 - Present
Data Scientist   *Vancouver, BC*

Currently employed as a data scientist, and working mainly as a consultant. Some examples of the projects I have worked on include (1) building NLP models to predict interaction with future published social media posts, (2) building demand prediction models to forecast future sales, and (3) mining data from NFL teams facebook pages and from ESPN blog posts to crowdsource opinions on which sports team is going to win.

SAP   February 2016 - June 2016
Cloud Analytics Developer   *Vancouver, BC*

Worked on SAPs BusinessObjects Insights tool (a tool to help users visualize and gain insights from their data). Specifically, I built tools to allow users to filter their data in a variety of ways.

Google   May 2013 - August 2013
Software Development Intern   *San Bruno, CA*

Developed a tool as a member of the YouTube Education team to expand the education channel and improve content.

Intel   May 2012 - August 2012
Software Engineering Intern   *Santa Clara, CA*

Intel Media Department - produced Java tools that interfaced with Amazon Cloud products: DynamoDB, S3, EMR.

ACADEMIC EXPERIENCE

*indicates a paid position

UBC Centre for Teaching, Learning and Technology   August 2016 - Present
Graduate Researcher   *Vancouver, BC*

Created a visualization to allow users to understand ways to engineer features in their temporal dataset so that the resulting features are both (1) informative in their abstracted level and (2) able to differentiate labeled groups. This analytic method was applied to understand how different types of learners interact with an online, exploratory learning environment. A paper on this visual analytic approach was submitted to the 2017 Learning @ Scale conference.

UBC Computer Science Department   August 2013 - February 2016
Graduate Researcher*   *Vancouver, BC*

Applied machine learning algorithms to cluster and classify low and high level learners and distinguish the actions they make while working through a physics circuit simulation. Developed a student model, and aimed to come up with suggestions for adaptive interventions. Presented paper on topic at the 2015 AIED conference. A journal paper on topic conditionally accepted in IJAIED.

UBC Sauder School of Business   June 2015 - Present
Graduate Researcher*   *Vancouver, BC*

Developing an efficient tool to parse heterogeneous US patent documents (1TB textual data, 1976 - present) to mine those containing key patterns of interest and extract features to correlate with stock market fluctuations.

UBC Computer Science Department   August 2013 - May 2014
Teaching Assistant - Human Computer Interaction (CPSC 344/544)*   *Vancouver, BC*

Upper division/graduate level HCI course. Led weekly workshops and contributed to course redesign.

UC Berkeley School of Information   September 2012 - December 2013
Undergraduate Researcher   *Berkeley, CA*

Analyzed and visualized large datasets of phone calls in a developing South Asian country to determine the homophily of different groups in the population. Developed a novel way to measure segregation within a population. Paper on this topic accepted to the 2013 ACM DEV Conference.

UC Berkeley Political Science Department   June 2012 - August 2013
Undergraduate Researcher*   *Berkeley, CA*

Developed tools to extract data from policies from the Office of Information and Regulatory Aairs (OIRA) and explored using topic models to help describe which policies OIRA chose to take action on.

UC Berkeley AMP (Algorithms, Machines, People) Lab   October 2011 - January 2013
Undergraduate Researcher*   *Berkeley, CA*

Built an interactive visualization that allowed users to visually understand how the parameters they chose impacted the accuracy and speed of SNAP, a nucleotide alignment tool built by the lab.

Berkeley Institute of Soft Computing   August 2012 - January 2013
Undergraduate Researcher   *Berkeley, CA*

Applied machine learning techniques to analyze semantically similar sentences, classifying a set of sentences as referring to the same image or a different one based on the nouns, verbs, and adjectives used in the sentences.

PUBLICATIONS

Journal Articles

· **Fratamico, L.**, Conati, C., Roll, I., & Kardan, S. (Under Review). *Applying a framework for student modeling in interactive simulations: comparing data representation granularity to handle environment complexity.* International Journal of Artificial Intelligence in Education.

Conference Proceedings

· **Fratamico, L.**, Perez, S., & Roll, I. (Under Review). *A visual approach towards understanding how students learn in complex environments.* Proceedings of the 4th ACM conference on Learning @ Scale. ACM.

· Conati, C., **Fratamico, L.**, Kardan, S., & Roll, I. (2015, June). *Comparing representations for learner models in interactive simulations.* International Conference on Artificial Intelligence in Education (pp. 74-83). Springer International Publishing.

· Blumenstock, J., & **Fratamico, L.** (2013, December). *Social and spatial ethnic segregation: a framework for analyzing segregation with large-scale spatial network data.* Proceedings of the 4th Annual Symposium on Computing for Development (p. 11-20). ACM.

CONFERENCE PRESENTATIONS

Artificial Intelligence in Education   June 2015
Comparing representations for learner models in interactive simulations   *Madrid, Spain*

EXTRACURRICULAR ACTIVITIES

GIRLsmarts4tech   November 2013 - February 2014;January 2016 - February 2016
Workshop Volunteer and Coordinator   *Vancouver, BC*

Led middle school girls through a series of computer science activities to enthuse them about programming and computer science.

Let's Talk Science   October 2015 - February 2015
Science Fair Mentor   *Vancouver, BC*

Guided seven 9th graders through the completion of a science fair project. Taught them the scientific method, experimentation, and data analysis. Four progressed to the regional fair!

TECHNICAL STRENGTHS

Computer Languages	Python (6 years), Javascript (2 years), Java (2 years)
Statistical Software	Weka, NumPy, SciPy, R, SPSS, MATLAB
Databases	Some experience with relational databases and SQL