Kristy Mualim

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EDUCATION

McGill University

Montreal, QC

Bachelor of Science in Biochemistry, C.S.

Sept. 2015 - April. 2019

- o BL21 Research Scholar: Top 20 Independent Research Scholarship for Most Innovative Research Ideas
- T.E.A.M Scholar: 10 selected as teaching assistants

International Culinary Centre

New York, NY

Professional Diploma for the Culinary Arts in French Cuisine

Jan. 2015 - July. 2015

o Maintained Perfect Attendance and Service Awards:

Research Experience

Undergraduate Research Assistant

McGill University, Montreal, QC

Principle Investigator: Dr. Jerome Waldispuhl, Department of C.S

May 2018 - January 2019

- o Structural Biochemistry and Bio-informatics Research: Implemented CNNs to solve multiple sequence alignment problem via utilizing human-computing crowd sourcing platform - Phylo¹
- Principle Investigator: Dr. Kalle Gehring, Department of Biochemistry

Sept. 2016 - June. 2018

- o Protein and nucleic acid structure analysis: Conducted in-depth research, compile data and prepare papers for presentation to supervisors. Spearheaded teambuilding efforts like retreats. Supervised an undergraduate.
- DENND3 linker project: Initiated novel project and discovered secondary structure within linker domain of mitochondrial protein involved in autophagy. Obtained and crystallized detailed N15-labelled NMR spectrum of structure
- o CNNM Transmembrane project: Resolved full crystal structure of CNNM Transmembrane protein

Projects

- Deep learning in gene expression inference: Utilized deep learning to predict gene expression of target genes via landmark genes in the LINCS Consortium Introduced & improved baseline algorithms
- Addressing building accessibility: Utilized machine learning on accelerometer data to measure building accessibility. (Awarded the Highest social good impact & most scalable use of Machine Learning)
- Computer visualization & classification task: Utilized CNNs and deep learning to predict hand-drawn images from GoogleDraw Competition, improved prediction accuracy by 11%.

Relevant Courses

Core Courses

Applied Machine Learning

Software Systems

Computational Biology Research & applications

Algorithms & Data Structures

Other Courses

Probability

Calculus & Linear Algebra

Statistics

Fundamentals of Computing

Programming Skills

• Languages: Python, Java, C, BASH Scripting

¹https://phylo.cs.mcgill.ca/; a crowd-computing platform for multiple sequence alignment.

PROFESSIONAL WORK EXPERIENCE

Tutor Nimbus Tutoring	Montreal, Quebec Dec. 2017 - April. 2018
$\bullet \begin{array}{l} \textbf{Garde-Manger} \\ Perilla \end{array}$	New York, New York May. 2015 - Aug. 2015
• Line Cook • Aquavit	New York, New York Feb. 2015 - Mar. 2015

LEADERSHIP EXPERIENCE

Events Coordinator

Montreal, Quebec

Roots: Youth Mental Health Alliance

Sept. 2017- Dec. 2018

- \circ Collaboration with local organizations: secured locations, handled logistics such as line-up for open-mic nights
- Organized Events: Hosted panel discussions and recruited intedisciplinary speakers; Publicized event island-wide
- o Marketing: Open-mic events to be featured in Documentary by Green Lion Films, to be released in 2020

Sociocultural Events Coordinator

HANY

Montreal, Quebec

Sept. 2017 - Dec. 2017

Head of Finance

Branch-Out Mentorship

Montreal, Quebec Sept. 2016 - Sept. 2017