Li, Feifei

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Research Interests

Computational biology algorithms, computational genomics, research informatics

Education

University of Toronto, Toronto, Ontario Canada

B.Sc., Bioinformatics and Computational Biology Specialist **September, 2017 - present**

Computing Skills

- Data Analysis: Hypothesis Testing and Statistical Estimation, Data Visualization, Supervised and Unsupervised Statistical Learning.
- Languages: R, Python, Java, C, SQL, LaTeX, Linux/UNIX shell scripting.
- Applications: Common spreadsheet and presentation software, Version control systems for team projects.
- Mathematics: Multivariable Calculus, Linear Algebra; some knowledge of computational theories, Data Structures and algorithms.
- Operating Systems: UNIX/Linux, Windows.

Laboratory Skills

- General Laboratory: Pipetting, Filtration, Titration, Media Preparation, Glassware cleaning.
- Biochemistry: PCR, Electrophoresis, Limited exposure to blotting, theoretical knowledge of chromatography, column, and florescent antibody techniques
- Instruments: Optic microscopes, Vortex mixers, Centrifuges, Spectrophotometers.

Experience

University of Toronto, Toronto, Ontario, Canada *Undergraduate*

Software Development **October - December, 2018**

- As a team of 4 together developed an Android application. (see project section below for details)
- Gained experience in working remotely and organising multiple in-person meetings.

Analysis of Toronto Break and Enter Crime Data in 2019 **March, 2020**

- Statistical analysis of real data on Break and Enters in Toronto during 2019.
- Responsible for selecting the appropriate statistical methods for analysing, integrating team members' ideas and boiled them down to actual code.

STEM Fellowship Big Data Challenge 2020 **May, 2020**

- Statistical analysis to explain severity of COVID-19 transmission in 144 countries using variables that reflect their economic development and population heath status.
- Organised multiple online meetings and worked remotely as a team of 4.

Projects

Game Centre - *An Android application containing three classic games available.*

- Developed with the basic software design principle (SOLID) in mind, and employed design patterns such as adapter and abstract factory to enhance code reusability and extendibility.
- Implemented a complete user management system.

Analysis of Toronto Break and Enter Crime Data in 2019

- An attempt to discover correlations between B&E crime occurrences and geographical factors

- Applied various statistical testings to the datasets.
- Data processing and analysis using R.