

KEVIN HE

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TECHNICAL SKILLS

- **Programming Languages:** SQLite, Python, R, C/C++, MATLAB, Maple, ArcGIS, AMPL
- **Operating Systems:** Windows, Ubuntu (Linux)
- **Software:** Tableau, Microsoft Office (Word, Excel, PowerPoint), Git, LaTeX

WORK EXPERIENCE

Sun Life Financial | Waterloo, ON Jan 2021 – Apr 2021
Incoming Actuarial Analyst Co-op

- Accepted offer for the January – April 2021 term

Department of Mathematics, Simon Fraser University | Burnaby, BC Sept 2020- Present
Research Assistant

Project: Game Theory Models of the COVID-19 Pandemic in British Columbia

- Modelling human behaviour and decisions through developing a discrete agent based epidemic simulation in R
- Performing exploratory data analysis and model selection by cleaning and transforming BC COVID-19 case data

Undergraduate Researcher May 2020 – Aug 2020
Project: Assessing Radicalization Pathways on the YouTube Algorithm

- Automated data collection on YouTube by web scraping over 1000 channels, videos, and comments using Selenium
- Manipulated data to create statistical models of user video consumption to assess YouTube's algorithmic bias

PROJECTS

MapleStory Player Exploratory Analysis | Python + R + Tableau May 2020 – June 2020

- Created a web scraping algorithm to collect data of over 20,000 players in the NA/EU Server using BeautifulSoup4
- Statistical analysis of player trends in different Jobs, Worlds, and Levels to reveal trends in player data using R and Tableau

YouTube to Spotify Playlist Adapter | Python Aug 2020 - Present

- Used the YouTube Data API and Spotify Web API to automate transfer of YouTube music and podcast playlists to Spotify
- Developed an API client to facilitate data collection, filtering, and search of over 100 song and playlists

LEADERSHIP EXPERIENCE

Operations Research Student Union Jan 2019 - Present
Vice-President

- Leading a team to coordinate the publication of Analytics Now, a peer reviewed journal in Operations Research
- Moderating union meetings following the set goal of promoting the field of Operations Research at SFU
- Increasing community within the Mathematics department through hosting semesterly workshops and social events

UNICEF Simon Fraser University Aug 2019 - Present
Vice-President Finance

- Raising funds for UNICEF Canada through collaborations with external organizations to host the annual UNICEF SFU Gala
- Analyzing onboarding and event data to build predictive models for maximizing profit of future events
- Mentoring club executives through monthly meetings discussing goal setting and personal development

EDUCATION

Simon Fraser University | Burnaby, BC Completion: December 2022
Honours in Operations Research, Minor in Computing Science, B.Sc | Co-op

- **Awards:** NSERC Undergraduate Student Research Award, Pathway to Teacher Education, District/Authority Community Service, BC Achievement, National Citizenship Award
- **Relevant Coursework:** Mathematical Models in Social Science (A), Discrete Math II (A+), R for Data Science (A+), Probability Models (A), Intermediate Probability and Statistics (A), AI Survey (A-), Data Structures and Programming (A)
- **Cumulative GPA and Honours:** 3.66/4.33, President's and Dean's Honour Roll
- **Competitions:** Systems Hack 2018 (First Place Team), created an interactive visual novel using HTML surrounding love

Certificates: Stanford University Machine Learning, UC Davis SQL for Data Science