Nick Hopewell

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Education

Trent University
B.Sc. Psychology (*Quantitative, with courses in Computer Science*)
April 2017, 3.9 GPA

Trent University
M.Sc. Data Science
December 2018, 4.0 GPA

Courses

Programming for Computer Science
Data Structures & Algorithms
Databases
Data Mining
Statistical Computing
Modelling Big Data
Introductory Statistics I & II
Advanced Statistics
Data Visualization
Computational Data Analytics
Statistical Power & Effect Size
Quantitative Modelling Thesis
Data Science capstone

Skills

Languages:
Python, R, SQL, C#, C

Software:
Django, Flask, SQLAlchemy, MySQL, PostgreSQL, pytest

Data:
Pandas, dplyr, ggplot2, SciKit, PySpark

Experience

Python Developer / Data Engineer *Canadian Federal Government*
Aug 2020 - present

- Built a Django application (and designed an accompanying relational database) to allow researchers to search documents and metadata related to Operation Syrian Refugees. This helped reduce time to access data from days/weeks down to moments/minutes.
- Converted legacy SPSS Modeler data processing streams to PySpark ETL jobs. These streams feed into a classification model for triaging visa applications.
- Developed and tested a Python command line application which controls the execution of these ETL jobs.

Data Scientist *Canadian Federal Government*
Aug 2019 - Aug 2020

- Productized a classification model as a Flask application, enabling real time predictions to be made on raw database records.
- Developed and tested a data ingestion/preprocessing API (a layer built on top of Pandas and the SciPy stack).
- Developed Python modules to support operations, such as masking secret data for use off premises.
- Mentored junior developers & organized their work via Azure Boards.

Junior Data Scientist *Canadian Federal Government*
Jan 2019 - Aug 2019

- Transitioned clients from random sampling of their population of interest to a risk-based sampling model.
- Wrote data wrangling pipelines with Python, Pandas, and dplyr, reducing days of work for our clients into minutes of data processing.
- Conducted extensive data analytics and visualizations using R and the Tidyverse stack.

Graduate Teaching Assistant *Trent University*
Sept 2018 - Dec 2018

- Course: *Computational Data Analytics*
- Aided in the creation of programming assignments which focused on mastering the R data science stack (including tidyr, dplyr, ggplot2 etc).

Graduate Teaching Assistant *Trent University*
Sept 2017 - Dec 2017

- Course: *Advanced Statistics for Behavioural Sciences*
- Troubleshot R, RMarkdown, and RStudio technical issues during labs.
- Aided students in completing their programming assignments.