
Education

Bachelor of Mathematics Honours:

Computational and Applied Mathematics and Statistics (Co-op Option) Sept 2010 – May 2015

Carleton University, Ottawa ON

- CGPA of 10.7/12.0 (Letter Grade: A-): Dean's List 2010-2015

MSc Statistics:

Under supervision of Graduate Chair Dr. Tim Swartz (Co-op Option)

Sept 2015 – TBD

Simon Fraser University, Burnaby BC

- NSERC CGS-M Award, Special Entrance Scholarship

Work Experience

Teaching Assistant	Simon Fraser University	Fall 2015-present
Technical Services Developer	360pi	Summer 2015 – Fall 2015
Writer (Data Science)	Carleton CQADS	January 2015 - present
Teaching Assistant	Carleton University	Fall 2012 – May 2015
QA Automation Co-op	360pi	Summer 2013 – Summer 2014
QA Analyst Co-op	360pi	Summer 2012

Projects (Hobby & Work)

Data Analysis for CIS Men's Basketball (Python, MongoDB, Flask) *September 2013 – Now*

- Scrapes play-by-play and box scores for any available season, cleans the play-by-play using AI algorithms, and produces new metrics using the result such as unadjusted/adjusted +/-, % of contributions when scoring margin is within x, % of contributions in the 4th quarter
- Currently working on a web UI aimed at CIS coaches as users

Consultant on NHL Trades and Trust Research (R, Python, LaTeX) *October 2015*

- Given a tight deadline of less than 10 days, wrote software (data manipulation, variable creation, model building using log-linear models, handling overdispersion) to implement proof of concept research requested by client and delivered a written and oral presentation with strong positive feedback
- Negotiated my own rate and hours, working independently to complete the task after discussions with my supervisor

Forum Scraper for Sentiment Analysis (Python, MongoDB, Flask) *February 2015*

- Prototype of my NSERC thesis, which can crawl RealGM's NBA Draft board for each post in each topic, creating representations of posts, threads, and users in a database and display summarizing data using text analytics with a web interface

AI Snake (Python) *February 2015*

- Individual class project for artificial intelligence course that required implementation of a variant of the popular snake game, where the snake must drive itself using uninformed searches (breadth first search, depth first search) and A* search
- Designed state space and coded implementation in Python with a command line UI, with reporting enabled for comparison between the searches
- Configurable grid dimensions, number of obstacles the snake must avoid, number of iterations before being finished, and search type

CFL Data (Python, MongoDB)*February 2015 – March 2015*

- Created system in Python to scrape a given season of CFL play-by-play game data, store in a database, and collect all 3rd down plays that did not end in a punt for later analysis
- Sold articles that use the codebase as a reference for tutorials to data analysis for Carleton's Centre of Quantitative Analysis and Decision Support

@astro_tweet_bot – twitter.com/astro_tweet_bot (Python, Flask)*April 12th-13th 2014*

- Twitter bot that reads tweets from sky-gazing enthusiasts and responds with observable sky phenomena, built and deployed live for 2014 NASA Hackathon in two days with two others
- Identified sources of useful information, tonightssky.com and spaceweather.com/flybys, developed scrapers that take the website's information depending on the user's request

Maple Output Parser (Python)*June 2014*

- Automates repetitive error prone task of analyzing and categorizing factored polynomials

QA Tool for 360pi (Python, Tornado, MongoDB)*December 2013 – May 2014*

- Created scripts for reporting on historical data generated from the users of the tool
- Implemented on-demand specific job creation to complement the previously sole method of randomly generated jobs; designed new schema, proper handling of new type of jobs, new UIs, updated reports display

Skills & Technologies Used

- Comfortable With: Python, MongoDB, Flask, R, HTML, CSS
- Have Learned: JavaScript, Node.js, C, C++, Java, SAS, MINITAB, SQLite, Tornado

Volunteer Activities/Other

- Event Coordinator, TSSU Representative for Statistics & Actuarial Science at SFU for 2015
- Self-employed tutor since 2008, seeking clients, arranging rate and hours, ensuring success
- Head of Logistics and Volunteers for CUMC 2014 which was hosted at Carleton University
- Organizer for OTTAnalytics 2015 at Carleton University, a conference about hockey analytics attended by over 200 people
- Co-op Peer Helper for the 2012-2013 academic year
- Campus Tour Guide for the 2012-2013 academic year
- Spoke at CUMC 2012 about mathematics of blackjack and at CUMC 2013 about advancements of computational statistics in basketball