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[Steven Wu]

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Education

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

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

Skills & Technologies Used

- Comfortable With: Python, Git, MongoDB, R, Flask, HTML, CSS, LaTeX
- Have Learned: MATLAB, JavaScript, C, C++, Java, SAS, MINITAB, SQLite, Tornado

Work Experience

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

Highlights of Work Experience

- Previous internship experience in software development and test automation using Git
- Wrote new web crawlers as well as updating existing ones to parse clean product information on various retailer websites
- Worked in a Kanban system that required problem solving and multi-tasking, implementing software solutions to customer specific requests or bugs of varying priorities independently
- Worked on crawler infrastructure; for example, implemented handling of long crawling processes that would become stale, resulting in a bottleneck in our customer workflow
- Implemented on-demand specific job creation for internal QA Tool to complement the previously sole method of randomly generated jobs; designed new schema, proper handling of new type of jobs, created new UIs, and updated the reports display

Relevant Projects

Full Stack Programming Projects

Data Analysis for CIS Men's Basketball (Python, MongoDB, Flask, D3)   *Sept 2013 – Now*
- Scrapes play-by-play, box scores, and player information for any available CIS season
- Cleans the play-by-play using AI algorithms
- Produces new metrics using the result such as unadjusted/adjusted +/-, % of contributions when scoring margin is within x, % of contributions in the 4th quarter, to name a few
- Implemented system for matching misspelled names across seasons to allow career analysis
- Currently finishing up a web app aimed at CIS coaches as users using visualizations in D3

Forum Scraper for Sentiment Analysis (Python, MongoDB, Flask)   *Feb 2015*
- Prototype of my NSERC thesis which can crawl RealGM's NBA Draft board
- Creates representations of posts, threads, and users for each post in each topic and stores it in a database
- Displays various summarizing data using text analytics with a web interface

Scientific Programming Projects

NHL Trades and Trust Research (R, Python, LaTeX)   *Oct 2015*
- Wrote software (data manipulation, variable creation, model building using log-linear models, handling overdispersion) to implement proof of concept requested by client
- Given a tight deadline of less than 10 days, delivered a written and oral presentation with strong positive feedback and a follow-up request for more work
- Negotiated my own rate and hours, working independently to complete the task after discussions with my supervisor

AI Snake (Python)   *Feb 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

Other Programming Projects

CFL Data (Python, MongoDB)   *Feb 2015 – Mar 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)   *Apr 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)   *Jun 2014*
- Automates repetitive error prone task of analyzing and categorizing factored polynomials

Other Activities

Event Coordinator, TSSU Rep	Simon Fraser University	Fall 2015 – present
Organizer	OTTanalytics	January 2015 – present
Head of Logistics & Volunteers	CUMC 2014	Summer 2013 – Summer 2014
Co-op Peer Helper	Carleton University	Fall 2012 – Winter 2013
Campus Tour Guide	Carleton University	Fall 2012 – Fall 2013
Speaker (Blackjack, SportVU)	CUMC 2012, 2013	Summer 2012, Summer 2013
Tutor	Self-Employed	Summer 2008 – present