Nikhil Thomas Joy

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WATERLOO ENGINEERING

Skills Summary

- Over 6 years of programming experience
- Involved in open-source efforts, and hacking away at personal projects
- Strong leadership and communication skills
- Efficient in a fast-paced environment with minimal aid or supervision
- Able to grasp new concepts and technologies and use them effectively
- **Technologies**: AWS, Angular.js, D3.js, Node.js, Python, R, Tableau, SQL

Education

Bachelor of Applied Science — Sept 2011 - Apr. 2016 — University of Waterloo

Electrical Engineering, Computer Engineering Option

- Cumulative GPA: 88.1, appearing on Dean's Honour List for 3 Academic Semesters
- Completed International Exchange at Lund University, Sweden
- Achieved A1 certification in Swedish and French
- **Relevant Courses**: Algorithms and Data Structures, Cooperative and Adaptive Algorithms, Software Architecture and Design, Computational Intelligence: Soft Computing

Work Experience

Data Scientist — June 2016 - Present — Toronto, ON; London, UK

Capital One

- Currently on Digital team in Canada, delving into metrics obtained from digital channels to drive higher mobile app downloads
- Engineered a data visualization dashboard using D3.js, Angular.js, Flask, and Teradata SQL; revitalizing the existing Tableau version
- Developed a geographically themed monitoring dashboard on Tableau using R, and UK GIS Data to determine residuals of internal models from UK postcodes
- Overhauled existing UK credit bureau data monitoring scripts from SAS to R, involving comparative analysis of historic data and ensuring that recent data follows historic trends. Output reports were generated using Knitr and ggplot2

Undergraduate Research Assistant — Jan. 2016 - Apr. 2016 — Waterloo, ON

UNIVERSITY OF WATERLOO

- Worked with Prof. Mark Crowley on Insecure Activity Pattern Detection, employing Machine Learning models to detect anomalous usage, and designed front-end user interface

Software Engineer — Sept. 2015 - Dec. 2015 — New York, NY

BUSTLE

- Spearheaded infrastructure development to collect various metrics such as click events, app installation instances, etc. using Amazon's API Gateway and Lambda (node.js) in main Ember.js application
- Took charge of project that built infrastructure using ElasticSearch and Serverless, a framework that utilizes AWS to build serverless micro-services, to handle geo-ip requests, and further provide weather data and location based analytics for internal use

Software Engineer — Jan. 2015 - July 2015 — Remote

Seeq

- Spearheaded effort to integrate manual tests into testing framework using ideologies from Behaviour Driven Development utilizing Node.js, Cucumber.js, Embedded JavaScript (EJS), Bootstrap, and jQuery
- Authored scripts using Node.js to dynamically query JIRA for completed tickets for automated Release Notes generation with EJS when product executable is built
- Addressed various bugs in Seeq's application front-end, and added Jasmine Unit Tests to improve overall code coverage

WATERLOO ENGINEERING

Work Experience

Systems Engineering Associate — May - Aug 2014 — Toronto, ON

ENDURAenergy

- Generated PVSyst simulations to simulate shading analysis and annual specific power production for rooftop and ground-mount solar energy projects
- Conducted research on impact of snowfall, ambient temperature, and geographical location to determine soiling losses on power production using sensory data collected from project sites using Python for data analytics
- Headed Database development using Google Docs, and Google App Script to meet project specifications

Projects

dJukeBox

- Native Android app that envisions to combine media sources from different service into one unified playlist, also enabling nearby users to add to playlists allowing collaborative playlists from different platforms
- **Technologies:** Backend – Heroku, Python, PostgreSQL; Frontend – Android Studio, Spotify API, YouTube API, Facebook API

AutoTrip (http://autotrip.heroku.com)

- Multi-platform application that inputs travel destination and duration of stay, and gauging user interests like cuisine, culture, nightlife, etc. and constraints like budget, generating a customized travel itinerary for individual users. It will also find travel logistics from place to place and allow caching of directions.
- Utilizes complex algorithms including Particle Swarm Optimization, and K Means Clustering to develop a suitable itinerary
- **Technologies:** Backend – Heroku, Flask (Python), PostgreSQL, Yelp API, Foursquare API, Google Places API, Google Maps API; Frontend – Angular

Awards

- University of Waterloo President's Scholarship of Distinction, University of Waterloo
- Nortel Networks Undergraduate Scholarship, University of Waterloo
- QEII - Aiming for the Top Scholarship, University of Waterloo
- University of Waterloo International Experience Award, University of Waterloo
- NSERC Undergraduate Research Award
- Swedish Women's Educational Association Toronto Travel Scholarship
- Siemens Canada Academic Achievement Award Scholarship, Electro-Federation Canada
- Savvas Chamberlain Scholarship, University of Waterloo

Interests

- Avid photography enthusiast, and nature-lover
- Passionate traveller – 31 countries, 151 cities and counting
- Fond of Billiards, Poker, and Chess