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**: Node.js, Angular.js, Python, AWS, jQuery, Bootstrap, Java, MS Access, AutoCAD, PVSyst, PSS/E, MATLAB

Education

Candidate for Bachelor of Applied Science Sept 2011 - Present University of Waterloo
Electrical Engineering, Computer Engineering Option

- Cumulative GPA: 88.9, 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**: Digital Communication, Electric Power Systems, Electrical Distribution Systems, Algorithms and Data Structures, Cooperative and Adaptive Algorithms

Work Experience

Software Engineer Sept 2015 - Present New York, NY BUSTLE

- Designing infrastructure to collect various metrics such as click events, app installation instances, etc. using Amazon's API Gateway and Lambda (node.js), and storing them in a Redis database for future data analytics on user engagement
- Taking charge of using text analyzing APIs such as AlchemyAPI and Indico to process article content for further insights

Software Engineer Jan - 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
- Integrated Flux-Angular into portions of Seeq's Angular application for "state"-ful data flow
- Addressed various bugs in Seeq's application front-end, and added Jasmine Unit Tests to improve overall code coverage

Systems Engineering Associate May - Aug 2014 Toronto, ON ENDURA energy

- 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

Power System Modelling Engineer Sept - Dec 2013 Burnaby, BC BC hydro

- Undertook the responsibility of updating the model of the Albertan electrical system, such that it can be effectively incorporated in bulk system planning and future Western Electricity Coordinating Council (WECC) base cases.
- Used PSS/E, Python, AWK, FORTRAN, C#, as well as command line prompts of PSS/E to further develop the in-house "Base Case Generator."

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Work Experience

Power System Model Management Intern — Jan - Apr 2013 — Calgary, AB

- Performed PSS/E simulations of Alberta Interconnected Electric System, delivered base cases (Power Flow Studies), and maintained power transmission system asset database (TASMo)
- Analyzed project specifications sent in by Transmission Facility Operators with single line diagrams
- Prepared custom Python scripts to automate and optimize company procedures by tenfold

Multimedia Application Developer — Apr - Aug 2012 — Waterloo, ON

- Took charge of the smartphone component of the project, comprising of design aspects of front-end development in ActionScript such as audio-video streaming, SMS, and email features
- Learned Java and XCode for native implementation on both iOS and Android while using SVN repositories to monitor project progress

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

Columbus

- Web based application that uses flight fare API such as Amadeus to explore a user defined region on Google Maps for a given vacation period, such that popular cities are routed and an optimal solution is returned using heuristics to maximize popularity, minimize cost, and minimize travel time
- **Technologies:** Backend – Python, Amadeus API; Frontend – Django, Google Maps API

AutoTrip

- 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.
- **Technologies:** Backend – Heroku, Python, PostgreSQL, Yelp API, Foursquare API, Google Places API, Google Maps API; Frontend – Django

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
» SWEA International Toronto Inc. Travel Scholarship, Swedish Women's Educational Association Toronto
» Siemens Canada Academic Achievement Award Scholarship, Electro-Federation Canada
» Savvas Chamberlain Scholarship, University of Waterloo

Interests

» Avid photography enthusiast, nature-lover, and seasoned traveller
» Aspiring polyglot - Knows French, Swedish, Hindi, Malayalam and 1 phrase in 11 different languages
» Fond of Billiards, Poker, and Chess
» Enjoys Soccer (on Intramural team), Tennis, and Swimming