Rahul Nath

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EDUCATION

Georgia Tech
M.S. in Computer Science
Candidate, Part-Time | OMSCS
Specialization in Machine Learning

Williams College
B.S. in Computer Science
B.A. in Economics
June 2015 | Williamstown, MA
Dean's List, Class of 1960 Economics Scholar

GCHS, Valedictorian
June 2011 | Glen Cove, New York

Relevant Coursework
High Performance Parallel Algorithms
Intro To Information Security
Machine Learning for Trading
Data Structures & Algorithms (Also T.A.'d)
Operating Systems

SKILLS

Programming

Primary Languages (1000+ lines):
Python • C • Java

Familiarity with:
SQL • Javascript • Lisp • x86 Assembly

Experience with:
Unix/Linux • Git/SVN • HTML/CSS
Google App Engine • Jinja2 • AWS EC2
Flask • Bootstrap • BeautifulSoup

Significant Exposure to:
PostgreSQL • AWS Redshift • Apache
Nginx • Solr • Jetty • Tomcat

APIs and Tools
Slack API • Twilio API • YouTube API
Pandora Bots API • Vagrant • Chartio
Optimizely A/B • Docker • Pandas
Numpy • Sklearn

Spoken Languages
Spanish (Intermediate Proficiency)
French (Beginner Proficiency)
Bengali (Intermediate Proficiency)

OPEN-SOURCE

- CKAN: Open Source DMS

EXPERIENCE

Udacity | Course Manager and Software Developer
Aug 2015 – July 2016 | Mountain View, CA

- Re-invented Intro to Programming Nanodegree (IPND) into exploratory program to other courses, increasing its enrollment by over 20% – the fastest growing nanodegree at Udacity.
- Created webcast teaching sessions and authored lessons on virtualization and Python optimization constructs.
- QA'd and created content for Machine Learning, DevOps & Android Basics.

Naval Research Laboratory | Contractor
July 2014 – Sept 2014 | National Harbor, MD

- Implemented a tool in Python for A.I. robot to learn actions in polynomial time – a previously intractable problem – making it feasible to automate the process of environment knowledge acquisition.
- Designed and implemented an algorithm in Lisp and Python to reduce prepositional and word-sense ambiguity in interpreted speech using contextual information.

Mobiquity | Android Developer Intern
May 2014 – July 2014 | Wellesley, MA

- Implemented communication and data collection between an EC2 server and an Android application for Mobiquity's deltaIQ platform.
- Created the UX, UI, and business logic for an indoor navigation application using Node.js, iBeacons, Google Glass, and AWS EC2, S3, Kinesis, and Cognito.

PROJECTS

Rentbot
- Helped create a chatbot designed to help San Francisco residents learn their rights as renters. Utilized Flask, Google App Engine, and Pandorabots API.

TA Sessions
- I conceptualized and developed Udacity's first student-to-student Q&A video platform – a full-stack project with integrated Slack orientation bot for over 2000 students. Leveraged Google App Engine, DataStore, and Ruby on Rails.

YouTube Data Pull
- Automated student YouTube data collection for Udacity webcasts. I wrote a Python cron job that collected over 8 million data points, formatted and stored the data on Udacity's AWS RedShift server, and pipelined it into Chartio.

PrePost2
- Using selenium, multiprocessing pools, and BeautifulSoup, I created a webscraper to collect documents and suggest 25% more accurate environment domain models to be used by an artificially intelligent agent planning its actions.

Medicost (MIT Hack Medicine Team, 24-hr hackathon)
- Created a website to easily search cost requests and receipts made by doctors, standardizing expensive medical procedure costs for over 44 million Americans without medical insurance. We used Flask, Grunt, JQuery, and Bootstrap.

Virtual Assembly Language Emulation
- I wrote a virtual emulator for a RISC assembly language using a CISC set. I found a trade-off of 26 CISC instructions for every RISC instruction.