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
Machine Learning for Trading
Human Computer Interaction
Intro to High Performance Computing
Intro To Information Security
Data Structures & Algorithms (Also T.A.'d)

SKILLS

Programming

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

Familiarity with:
SQL • Javascript • x86 Assembly

Experience with:
Pandas • Numpy • Sklearn
PostgreSQL • AWS Redshift

Flask • SQLAlchemy ORM
• BeautifulSoup • Unix/Linux
Git/SVN • Google App Engine
• Jinja2 • Bootstrap • AWS

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

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

OPEN-SOURCE

- CKAN: Open Source DMS

EXPERIENCE

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

- 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.
- Created content and QA'd for Machine Learning, DevOps & Android Basics.
- 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.

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

- Implemented a tool in Python to learn actions in polynomial time – a previously intractable problem – making it feasible to automate the process of environment knowledge acquisition for an A.I. agent.
- 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

Trading Algorithms
- A repository of machine learning tools I wrote for graduate school and have extended to aid in exploring alpha in the stock market.

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

"Predicting Boston Housing Prices"
- I evaluated the performance and predictive power of a model that has been trained and tested on data collected from homes in suburbs of Boston, Massachusetts. Model was then used to predict the price of said homes.

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.

"From Play to Work: Effect of Youth Programs on Dropout Rates"
- An econometric study I performed exploring the possibility that attendance of extracurricular programs intended to motivate and engage students – including youth programs and dropout prevention programs – is associated with a lower likelihood of dropping out for at-risk students. Analysis available upon request.