# 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 Hadoop and MapReduce (Udacity) Data Visualization and Analysis Data Structures & Algorithms (Also T.A.'d) Information Security

# **SKILLS**

# **Programming**

Primary Languages (1000+ lines): Python • Javascript

#### Experience with:

Java • x86 Assembly • C

## Data Skills

SQL • Pandas • NumPy R • scikit-learn • BeautifulSoup Hadoop/MapReduce (CDH, Cloudera) ReactJS/Redux/D3.js • PostgreSQL

## Back-End:

NodeJS • SequelizeJS • Koa Flask • SQLAlchemy • PassportJS Nginx • GCP DataStore

#### Dev-Ops:

Docker • Kubernetes • Apache Wercker • Quay • Vagrant AWS EC2, S3, Redshift

## **Spoken Languages**

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

## **EXPERIENCE**

## WorkRails Inc. | SOFTWARE ENGINEER

July 2017 - Present | New York, NY

- I work within the React/Redux frontend and NodeJS backend. I design and implement UX features, APIs, data models, & DevOps.
- Developed partner custom login and SSO, calendar, work routing, and Developer API features, bringing in over \$20k in MRR.
- Decreased our production deployment time by 30% by parallelizing pipelines of independent deployed clusters.

## Udacity | Course Manager/Software Dev

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%.
- Automated student YouTube data collection for all Nanodegree webcasts. I
  wrote a Python cron job that pulled, formatted and stored the data using AWS
  Redshift. Data then pipelined into Chartio for company-wide accessibility.

## Naval Research Laboratory | Contractor

July 2014 - Sept 2014 | National Harbor, MD

- Implemented a tool in Python that generates action models in polynomial time previously an intractable problem expanding the planning domain of environments for an A.I. agent to acquire knowledge.
- Designed and implemented an algorithm in Lisp and Python to resolve prepositional and word-sense ambiguity in natural language processing using collected contextual information.

#### Mobiguity | Android Developer Intern

May 2014 - July 2014 | Wellesley, MA

- Helped implement health data collection for Mobiquity's deltaIQ Android application. Used Amazon Kinesis EC2 and Android (Java).
- Designed and implemented a prototype of an indoor navigation application using Node.js, iBeacons, Google Glass, and AWS (EC2, S3, Kinesis, and Cognito).

# **PROJECTS**

## PrePost2

• Using selenium, multiprocessing pools, and BeautifulSoup, I created a webscraper to collect documents and increase the accuracy of environment domain models by 25%. Domain models are used by A.I. agents to plan actions.

#### **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. (Pandas, NumPy, Deep Learning)

#### "Predicting Boston Housing Prices" (Udacity)

• I evaluated the performance and predictive power of a model that has been trained and tested on data collected from homes in Boston suburbs.

#### "From Play to Work: Effect of Youth Programs on Dropout Rates" (Term Paper)

• I used dprobit regression to explore the effect of extracurricular program attendance on the likelihood of dropping out of high school for at-risk students.

#### Medicost (MIT Hack Medicine Team, 24-hr hackathon)

• Created a website to search for specialist doctors and procedure costs using public insurance claims data from the Department of HHS. (Pandas, Flask)