

# AMAR H. SHAH – SOFTWARE ENGINEER

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## EDUCATION

**Cornell University**, Ithaca, NY

**August 2015 - May 2019**

Bachelor of Arts: Major in Computer Science, Minor in Applied Economics and Management

Coursework: Machine Learning, Computer Vision, Technology and Entrepreneurial Strategy

Honors/Awards: Dean's List - Spring 2018, Meinig Family Cornell Honors Scholar

## RELEVANT EXPERIENCES

**IBM Cloud**

**August 2019- Present**

*Fullstack Engineer – Load Balancer as a Service*

San Jose, California

- Actively followed an Agile methodology with a team of 8 engineers on 2 week sprints to close 30 issues per sprint
- Co-led a transition to a new monitoring service touching the backend code transition, seamless live migration for 6 regions across the globe, and UI integration involving 5+ services and microservices with Golang and PHP [300+ LOC]
- Facilitated a shift from IBM DB2 to PostgreSQL involving creating database migration utilities and re-tooling data structures in GoLang and SQL [400+ LOC]
- Developed features such as HTTP traffic redirection and header logging at the layer 4 and layer 7 networking levels [100+ LOC]
- Automated and optimized the image upgrade process to reduce maintenance from 5 days to 2 days with python scripts [200+ LOC]
- Contributed to design changes on the IBM Cloud Load Balancer consumer portal built on React and Node JS [80 LOC]

**Investment Technology Group**

**June 2018-August 2018**

*Summer Technology Analyst*

New York, NY

- Created a price prediction model using historical stock prices, real-time volatility, and a feed forward neural network architecture
- Built a production data pipeline to parse, clean, and analyze client orders using Python Pandas and SQL (100 million rows of data+)
- Conducted trend analysis to identify inefficiencies and generate more effective order strategies
- Visualized patterns and outliers in the collected data in a client-friendly web-portal using CGI-Perl

**MIT Lincoln Laboratory**

**June 2017-August 2017**

*Summer Research Intern*

Lexington, MA

- Analyzed the structure and properties of large graphs (10,000,000 edges) to create a k-way partition based on inter-partition properties
- Developed and coded a Partitioning Algorithm relying on the Stochastic Block model in Julia (300+ lines of code)
- Increased graph processing framework capabilities by space factor of 10<sup>2</sup> edges and speed complexity of 10<sup>2</sup> seconds

## LEADERSHIP & PERSONAL PROJECTS

**Machine Learning Teaching Assistant (CS 4780)**

**August 2018-May 2019**

*Teaching Assistant to Dr. Kilian Weinberger*

Ithaca, NY

- Held office hours to answer student's questions on topics like Neural Networks, SVMs, Random Forests
- Helped write and grade homework assignments, group projects and exams.
- Taught small study groups of 15-20 people for 2 hours a week

**AI Nutrition Guide (Desktop App)**

**September 2018 – December 2018**

*Senior Design Project*

Ithaca, NY

- Collected and cleaned open source food image dataset
- Trained Convolutional Neural Network on 10 classes of 100 images to classify foods and their nutritional information
- Built desktop app to ingest images and output caloric and nutritional breakdowns

**YaleHack Hackathon**

**December 2017**

*G-Pass: Revolutionizing Grocery Sharing*

New Haven, CT

- Placed in Top 10 for Intuit Education Prize
- Theorized and built interface for a novel and disruptive digital marketplace for exchanging excess, unused groceries
- Developed interactive interface using Node.js and Javascript as well as backend proof of concept with MongoDB.

## SKILLS & INTERESTS

Technical Skills: Python, SQL, Golang, Java, PHP, Julia, Git, React

Languages: English, Spanish, Gujarati

Interests: Cooking ethnic foods, landscape photography, South Asian dance (Raas-Garba)