

ISHA MEHRA

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EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Bachelor of Science, Statistics and Machine Learning, May 2018

Selected Coursework: Introduction to Machine Learning · Natural Language Processing · Principles of Imperative Programming · Modern Regression · Practical Data Science · Introduction to Statistical Computation · Statistics Graphics and Visualization · Modern Data Management · Crowd Computing · Learning Media Methods

SKILLS

Programming: Python (Pandas, NumPy, Tkintr, Scikit-Learn, NLTK) · SQL · R · C · Pig · Hadoop MapReduce

Machine Learning: NLP · Naive Bayes · Linear and Logistic regression · Regularization · Perceptrons · Kernels, · SVMs · Clustering · PCA · Neural Networks · Backpropagation · HMMs · Bayesian Networks · Matrix Factorization

Other: Tableau · AS3/Redshift · Jira · Excel · Minitab · Poker Strategies

EXPERIENCE

Data Science Intern, Microsoft Corporation

Redmond, WA, Summer 2017

- Designed and deployed a life cycle programmatic model for Microsoft Surface products for the Manufacturing and Supply Chain Team; model helped evaluate reasons why Surface devices become inactive and reach end of life.
- Developed an effective metric to measure brand loyalty for Surface devices and detect patterns in end-user device migration, device replacement, end-user segmentation and characterization, return reason.
- Performed large-scale data analysis using SQL, C#, MapReduce on datasets from over 40 million device signals from Microsoft's telemetry and performed sentiment analysis using NLTK in Python on returned devices.
- Developed comprehensive understanding of Microsoft's data structures, metrics, models and their underlying assumptions and worked cross functionally to pivot analysis across more models.
- Presented findings and actionable insights to key stakeholders in the Supply Chain Executive Leadership.

Digital Health and Analytics Intern, Johnson & Johnson

Raritan, NJ, Summer 2016

- Engineered a full-stacked project, from idea to implementation, that manipulated JSON files stored in AWS using the Pandas python library and modeled it in Tableau in order to track mental health improvement.
- Managed development of tool for diabetes patients with global software, analytics, and brand teams.

Teaching Assistant for 15-112, Carnegie Mellon University

Pittsburgh, PA, Spring 2016

- Taught and introduced Fundamentals of Programming and Computer Science; led 150-student lectures, recitations, office hours, and mentored 20 students to design, understand python libraries, and code a 3-week project.

Software Engineering Intern, Limelight Networks

Burlington, MA, Summer 2015

- Created network usage artifacts that depicted the bandwidth, server and Egress capacities for all regions; artifacts used by C-level executives to identify the most overworked servers and determine global next steps.
- Audited database for 30,000 Device servers; worked with over 30 team owners and used Python to organize data.

PROJECTS

Netflix Prize Recommendation System

Spring 2017

- Built Python script applying both Content and Latent Factorization and Stochastic Gradient Descent to predict user's movie ratings from over 700,000 observations. Received Top 20/600 in accuracy in the masters level class.

Question Generating and Answering System for Wikipedia

Fall 2016

- Designed and developed a system using NLTK in Python to intake any wikipedia article to generate complex questions or a corresponding compact and intelligent answer using a tokenizer and applying lancaster stemmer and frequency analysis to minimize distance for possible answers.

Tartan Data Science Cup

Fall 2015

- Analyzed a dataset of 20,000 bike trips to determine the optimal locations for new Citi Bike NYC stations by using machine learning and graph theory algorithms with Python packages Sci-kit learn and NetworkX.

Quadratic Solver

Spring 2015

- Fully functional Python project in Tkintr that intakes typed formula to display step-by-step guide and graph.

LEADERSHIP

2014-2017: President of Bhangra in the Burgh (*largest student-run event in Pittsburgh*) · Service & Philanthropy Director of Kappa Alpha Theta · Recruitment Counselor of CMU Panhellenic · Site Leader of CMU Day of Service

2010-2015: Founder of Count to Freedom (*non-profit dedicated to providing free education at Mayank in Agra, India*)