

# ADITYA GARG

adityagargg@gmail.com | [LinkedIn](#)

## EDUCATION

### Columbia University, Fu Foundation School of Engineering and Applied Science

New York, NY

Master of Science in Data Science, 3.94

Dec 2017

- Courses: Algorithms, Statistics and Probability Theory, Statistical Inferential Modeling, Machine Learning, Computer Systems, Natural Language Processing, Neural Networks and Deep Learning

### Indian Institute of Technology Roorkee

Roorkee, India

Bachelor of Technology

May 2014

- Courses: Computer Systems and Programming, Data Structure, Linear Algebra, Calculus, Geoinformatics

## EXPERIENCE

### Tesla

Palo Alto, CA

Senior Data Scientist, Charging Data and Modeling

Mar 2018 - Present

- Technical lead for network planning and modeling team with 3 data scientists, and manager for 3 interns
- Developed a demand forecasting and capacity planning framework for allocating ~\$1billion budget for supercharger network leveraging time-series modeling, supervised regression, and unsupervised clustering models
- Developed a generalized spatial optimization model for recommending charging infrastructure locations globally
- Causal analysis using bayesian structural time series model for measuring and modeling the impact of new infrastructure on existing network and customer charging behavior
- Built a network and traffic simulation model to study impact of product design and charging infrastructure changes on travel patterns and customer experience
- Led end to end implementation of data science projects, collaborating with cross functional teams - from firmware implementation to automated data ingestion to data modeling to production deployment
- Developed dockerized APIs for geospatial mapping and planning tools used by several hundred site developers and executives

### United Nations DPKO

New York, NY

Data Science Intern

Oct 2017 - Dec 2017

- Integrated, visualized, and analyzed geospatial and unstructured text data to generate actionable insights on conflicts and fatalities for Department of Peacekeeping Operations.

### IBM Research

Yorktown, NY

Data Science Intern (IBM Social Good Fellow)

May 2017- Aug 2017

- Used natural language processing and machine learning to extract semantic, lexical and personality features from raw text, perform topic modeling, detect biases, and develop an automated grader and classifier.

### NASA Goddard Institute for Space Studies

New York, NY

Research Assistant

Sep 2016 - Dec 2016

- Developed statistical methods to determine global trends and predictability of forest fire activity based on climatic conditions using satellite and climate data.

### Flipkart Internet Private Limited

Bangalore, India

Data Scientist, Demand Modeling and Shaping

Jun 2014 - Jun 2016

- Identified key pricing factors to develop demand forecasting models and a price indexing mechanism
- Developed product clustering models to evaluate cross-product price elasticity and internal cannibalization

## PROJECTS

### Improved Training of WGANs, Columbia University

Nov 2017-Dec 2017

- Implemented a modified loss function for training Wasserstein Generative Adversarial Networks (WGANs) and studied its performance on MNIST datasets under different architectures for the generator and discriminator.

### Interactions Between Gene Methylation and Age, BMI and Smoking, Unilever

Sep 2017- Dec 2017

- Modeling and identifying interactions between hypo- and hyper-methylated genes and the biological aging process via age, BMI and relations to smoking using skin methylation DNA datasets.

## SKILLS

- Python, Spark, SQL, HTML, CSS
- TensorFlow, Docker, Airflow, Tableau