

# VIDYA VENKITESWARAN

160 Claremont Avenue, #1F, New York, NY 10027 | 917.325.1397 | [vv2269@columbia.edu](mailto:vv2269@columbia.edu)  
[www.vidyavnv.github.io](http://www.vidyavnv.github.io)

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## EDUCATION

**Columbia University, Fu Foundation School of Engineering and Applied Sciences**  
Master of Science in Computer Science, Machine Learning

New York, NY  
Expected Dec, 2017

**University of Delhi, Netaji Subhas Institute of Technology**  
Bachelor of Engineering in Information Technology, 71.66%

New Delhi, India  
May, 2014

Relevant Courses: Data Structures, Algorithms, Artificial Intelligence, Machine Learning, Theory of Computation, Database Systems, Operating Systems, Software Engineering, Computer Networks

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## EXPERIENCE

**Delhivery (SSN Logistics)**  
Software Engineer

Gurgaon, India  
Mar, 2015 - Aug, 2016

- Simulated Delhivery's logistic network to build a probabilistic model in order to predict package arrival time with an error estimate
- Built a model to predict category and sub-category of products using Naive Bayes algorithm to achieve an accuracy of 94%. It resulted in product level intelligence improving the item catalog, better item pricing, and enhancing metadata
- Re-architected Addfix (a model to identify locality and sub-locality from uncleaned addresses) by converting it into a Restless API; improved the requests handling from 6 requests/second to 752 requests/second, without any data loss
- Developed a feedback-framework which allows user to tag localities in addresses using frequency analysis(n-grams). This increased the Data-Quality team's efficiency in creating data for Addfix, from 200 addresses per day to 1000 addresses per day

**American Express**  
Software Engineer

Gurgaon, India  
Jul, 2014 - Feb, 2015

- Led a project to integrate two systems - Data Warehouse and Data Mart to enable modellers to fetch details corresponding to campaigns and users; enabled data analysts to gather information from one source only and thus, improved creation of models in a faster way
- Developed an application using Python and Hadoop in which libraries for K-NN, Random Forest, and Gradient Boosting are integrated to assign customers' a score, for efficient campaign management; resulted in integration of varied systems under one roof
- Improved in-house Big Data architecture and applied algorithms which improved the efficiency of the systems

**Mozilla Foundation**  
Open Source Developer

Delhi, India  
Dec, 2014 - Mar, 2015

- Enhanced Talos (Mozilla's Testing Framework) by fixing deprecated scripts, which resulted in 10% increase in the efficiency of the framework

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## ACADEMIC PROJECTS

**Predict the financial market uncertainties using the conglomerate of search analytics, stock basket correlation and historical data**

- Employed a pilot approach of evaluating one company on all three parameters- historical prices, tweets, headlines and Google Trends
- Used Google Analytics to reduce error in prediction and expanding the project to involve various market sectors

**Sentiment Analysis of Users' Reviews on IMDB Movies**

- Applied Naive Bayes classifier using NLTK in Python to classify reviews into positive or negative class with an accuracy of 74%
- Developed a feature mechanism in Python which selects top N words to classify the reviews. This increased the accuracy to 84%

**Detection of anatomical structures in abnormal retinal Images for identifying glaucomatous changes** (funded by the Government of India)

- Developed an algorithm to detect optic disc and macula using MATLAB which has a success rate of 90%
- Worked on applying machine learning techniques to identify the optic disc and optimized the algorithm

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## SKILLS

**Languages:** Python, C, C++, Matlab,  $\text{\LaTeX}$ , HTML, CSS, JavaScript  
**Tools/Frameworks:** WEKA, Git, LAMP, Hadoop, Disque, RabbitMQ  
**Data Stores:** MySQL, Oracle, PostgreSQL, MongoDB, Redis, Neo4j  
**AWS:** API Gateway, Lambda, SQS, S3  
**Big Data:** Hadoop, MapReduce, Hive

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## HONORS AND AWARDS

Teaching Assistant: Introduction to Computing, **Columbia University**  
Speaker, **WithTheBest Conference for Developers**  
The Bolt Champion, **Delhivery(SSN Logistics)**  
Merit Scholarship, **University of Delhi**  
Cofounder of ACM-NSIT Chapter, **University of Delhi**

Sep, 2016 - Dec, 2016  
Sep, 2016  
Jul, 2015  
Aug, 2013 - May, 2014  
Jun, 2013