

# VIKRAM SUNIL BAJAJ

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## EDUCATION

**New York University** | Tandon School of Engineering

**Brooklyn, NY**

*Master of Science in Computer Science (GPA: 3.93/4)*

*May 2019*

- **Relevant Coursework:** Machine Learning, Data Science, Big Data, Info Visualization, Computer Vision, Cloud Computing, Databases, Algorithms
- **Honors:** Awarded an **Academic Achievement Award** and a **merit-based graduate scholarship**

**Gandhi Institute of Technology and Management** GITAM School of Technology

**Hyderabad, India**

*Bachelor of Technology in Computer Science and Engineering (GPA: 3.95/4)*

*Apr 2017*

- **Relevant Coursework:** Artificial Intelligence & Machine Learning, Data Mining, Cloud Computing, Probability & Statistics

## EXPERIENCE

**Curai**

**Palo Alto, CA**

*Software Engineering Intern (Machine Learning)*

*Feb 2019 - Apr 2019*

- Built a “Suggest Diagnoses” feature with **Deep Learning**-based dermatological disease diagnosis in **First Opinion** to aid doctors with diagnosis
- Implemented a “Next Question” flow to determine the next question to ask a patient with Deep Learning-based image differential as a prior
- Trained a Rash vs. Neoplasm classifier (using **PyTorch**) that achieved 90% accuracy on dermatologist-annotated test images, to enable triaging
- Developed a reusable image annotation tool and a **React** UI to demonstrate various Deep Learning models for dermatological disease diagnosis

**Deutsche Bank** | Chief Data Office

**New York, NY**

*Technology Analyst Intern*

*Jun 2018 - Aug 2018*

- Applied **Natural Language Processing in Python** to map attributes based on similarities in their descriptions, toward automating data lineage
- Performed **sentiment analysis** of news articles to analyze the correlation of sentiment with stock trend; built a **Flask** web app to demonstrate
- Reviewed the ML capabilities of DgSecure for the detection of personally identifiable information in unstructured data, toward GDPR compliance

**New York University** | Center for Data Science and Tandon School of Engineering

**New York, NY**

*Graduate Teaching Assistant and Grading Assistant*

*Nov 2017 - May 2019*

- **TA for Information Visualization** (CS-GY 6313) in Spring 2019, **Deep Learning** (CS-GY 9223-E) in Spring 2018, **Big Data Analytics** (CS-GY 9223-G) in Fall 2017 at NYU Tandon. **GA for Deep Learning** (DS-GA 1008) in Spring 2018 under Prof. Yann LeCun, **Intro to Machine Learning** (DS-GA 3001) and **Programming for Data Science** (DS-GA 1007) in Fall 2018 at NYU CDS

**Indian Institute of Technology (IIT Madras)** | Visualization and Perception Lab

**Chennai, India**

*Summer Fellowship Intern*

*May 2016 - Jul 2016*

- Implemented a Content-Based Image Retrieval (CBIR) system in **MATLAB**, using **Computer Vision** and **Machine Learning** techniques

## PROJECTS

**Firewatch: Visualizing U.S. Wildfire Data** | D3.js, Tableau

*Oct 2018 - Dec 2018*

- Used D3.js and Tableau to develop interactive visualizations (choropleth maps, bar charts and line charts) for U.S. wildfire data

**Viki: A Web Search Engine** | Python

*Oct 2018 - Dec 2018*

- Built a web search engine, comprising of a focused crawler, an indexer and a query processor
- Also performed a comprehensive survey of various query-independent and query-dependent search result snippet generation techniques

**MusiCloud: A Cloud-Based Music and Concert Recommendation System** | AWS Services, Python, Node.js

*Mar 2018 - May 2018*

- Led a team to develop a conversational bot that recommends music and upcoming concerts, using **AWS Services** and the Songkick API

**Mask-it: Applying Snapchat-like Filters on Face Images** | Python

*Mar 2018 - May 2018*

- Implemented the overlaying of Snapchat-like filters on face images: face detection, landmark detection, mask morphing and alpha blending

**NYU Network: A University Social Network** | MySQL, PHP, HTML, CSS, JavaScript

*Mar 2018 - May 2018*

- Created a social network prototype; features: sending friend requests, creating posts, likes, dislikes, updating user profile, viewing activity feed

**Global Temperature Change Prediction** | Python

*Oct 2017 - Dec 2017*

- Predicted the temperature of a given city across a specific time period, using an ARIMA model for **time series forecasting**

**Climate Change and its Impact on Health** | PySpark, Spark MLlib, Tableau

*Oct 2017 - Dec 2017*

- Leveraged Big Data tools to analyze climate change and pollution data, and study their impact on human health

**AI Sight: Object Recognition on your Smartphone!** | Java, XML, Caffe

*Dec 2016 - Feb 2017*

- Independently developed an Android app for offline object recognition (available on Play Store)

## PUBLICATIONS

- Santosh, D. Teja, Vikram Sunil Bajaj, and Varun Sunil Bajaj. “Development of a Micro Hindi Opinion WordNet and Aligning with HOWN Ontology for Automatic Recognition of Opinion Words from Hindi Documents.” *International Conference on Next Generation Computing Technologies*. Springer, Singapore, 2017

## SKILLS

- **Programming Languages:** Proficient: Python, SQL, MATLAB; **Working Knowledge:** R, Java, D3.js, Node.js; **Familiar:** C, C++
- **Data Science Libraries (Python):** scikit-learn, nltk, gensim, pandas, numpy, matplotlib, plotly
- **Tools/Technologies:** Data Science, Machine Learning, Deep Learning (PyTorch, Keras-TensorFlow), Computer Vision, NLP, Tableau, Big Data (Hadoop, Spark, PySpark), AWS (Lambda, Lex, Amazon ML, Elasticsearch, DynamoDB), Flask, React, LaTeX, Graphic Design

## CERTIFICATIONS

- **Introduction to R for Data Science** certificate by Microsoft on edX *Jun 2019*
- **Deep Learning Specialization** certificate by Andrew Ng (deeplearning.ai) on Coursera *Sep 2018*
- **Introduction to Corporate Finance** certificate by the Wharton School, University of Pennsylvania on Coursera *May 2018*
- **Introduction to Python for Data Science** certificate by Microsoft on edX *May 2016*
- **Machine Learning** certificate by Stanford University on Coursera *Apr 2016*