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| Harrison, NJ  (609) 666-7106  [gp254@njit.edu](mailto:gp254@njit.edu) | **Guruprasad Venkata Raghavan** | <https://github.com/vgpprasad91>  <https://www.linkedin.com/in/vgpprasad> |

**Technical Skills**

*Languages:* Python (NumPy, SciPy, Pandas, Scikit learn, Statsmodels, OpenCV, matplotlib), R (ggvis, dplyr, caret), Scala (Spark), SQL , MATLAB, C, C++, Java(J2EE, JSP, Spring, Hbernate, Struts, Servlets, Junit), Javascript(Ajax, Jquery, NodeJs,Angular), Go.

*Frameworks/Tools:*SPSS, Hadoop, Pig, Hive, Storm, Kafka, Elastic Search, Kibana, Mapreduce, Cassandra, MongoDB, Ansible, Git.

*Other:* Survey analysis, Agile development, Time series modeling, Database design, automation, A/B testing, Full Stack development

**Project Experience**

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| **Social-payments-app-**[**Spark Based Web Application**](http://bit.ly/2it6ZAd) | *Fall 2016* |

* An interactive application, that is efficient in fraud detection by finding the relationship between payer and receiver.
* Performed real time/batch processing of the transactions data, using Spark Streaming and SQL, Kafka, AWS cloud S3, ElasticSearch DB, Redis, Flask and AngularJs.
* Optimized search and query results with bidirectional search and combining query of elastic search and Redis.

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| **Hotel Recommender bot system-** [**NLP Chat Application**](http://bit.ly/2inlBTR) | *Fall 2016* |

* An efficient chat application that starts a conversation, to recommend/book hotels to customers based on their preferences.
* It finds the intent of the user’s request and identifies Location, Date, time and number of guests from the conversation.
* It uses Tensorflow’s syntaxnet library and NLTK to perform dependency parsing and part of speech tagging activities using Google Cloud compute as the backend by remote networking with Python’s paramiko package.

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| **Self-Driving Car Training -** [**Reinforcement Learning based Game**](http://bit.ly/2iBsuS6) | *Fall 2016* |

* This project aids a self-driving Artificial Intelligence agent to effectively reach its destination in allocated
* This project applies a Q-learning algorithm to find the best configuration of learning with consistently positive results.
* The game makes use of python, pygame and effective machine learning strategies.

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| **Stock Price Indicator - Machine Learning based Android application** | *Fall 2016* |

* A training interface and a query interface that accepts a date range and predicts the future stock value.
* The training data is taken from Yahoo finance, Bloomberg API and Quandl using Python, Pandas and SQL.
* A better user interface to predict stocks is built using Android and the process is documented.

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| **Linux Kernel Programming - Customized Linux Kernel** | *Spring 2016* |

* Modified and rebuilt a customized Linux kernel using C and Linux Assembly for the course.

**Work Experience**

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| **Institute of Research and Planning ( NJIT )-***Research Assistant* | Newark, NJ | *June 2016-Present* |

* Gathered twitter data, built a database modelling system and summarized key themes. (Topic modelling, sentiment analysis)
* Analyzed the suspension data and predicted the students to be suspended (Logistic regression, Pandas, Python, Scikit learn).
* Predicted the response rate of students to surveys from data on survey emails. (Python, SVC, Statsmodels)

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| **TATA Consultancy Services -** *Systems Engineer* | Pune, India | *July 2013-July 2015* |

* Analyzed the automobile dataset and created a web interface by building RESTful API’s. (Java, Hadoop, MongoDB).
* Developed various tools and scripts from process improvement through automation (Python and MATLAB).
* Collaborated with engineers to develop effective image classifiers (MATLAB, Bag of features, K-means clustering)

**Education**

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| **New Jersey Institute of Technology –** *Computer Science, M.S. (Machine Learning, Data Mining, R prog,*  *Software engineering, Database Management Systems, Data Structures and algorithms, Operating systems)*  **Sastra University-***Electronics and Communication Eng., B.Tech ( Neural Networks, Signal Processing )*  **Udacity –***Machine Learning Engineer* (Supervised, Unsupervised, Reinforcement Learning, Model Evaluation)  **Udacity** – Self Driving Car Engineer Nanodegree ( Deep Learning, Computer Vision, Cognitive Technology ) | Sep 2015 - Present  Jul 2009 – May 2015 |

**Honors and Activities**

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| * Best project in MATLAB – *Gold Medalist* * Best employer of the project award - *TCS* | *May 2013*  *July 2013 - July 2014* |