Shreyas Govindaraju

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Education

May 2018 **University of Southern California**, Los Angeles — GPA: 3.56/4.00
M.S., Computer Science
Coursework: Machine Learning, NLP, AI, Operating Systems, Databases and Algorithms.

May 2015 **National Institute of Technology Karnataka**, India — GPA: 8.27/10.00
B.Tech, Computer Science and Engineering

Technical Skills

Programming Languages:	Python, C/C++, Javascript, Shell Scripting
Web Technologies:	Node.js, Bootstrap, Webapp2, Django,Prototype
Applications :	Jenkins, Google App Engine, Heroku, MySQL, NoSQL.

Work Experience

May 2017 - Aug 2017 | Software Development Intern, **Tintri** (Mountain View, USA)
- Built an automation tool to highlight known fingerprint failures from test suites.
- Analyzed different log files which are filtered with known patterns and time frame for analysis.
- Developed an end to end web application to accommodate easy analysis and reporting of bugs.

Tech stack | **Python, Django, Bootstrap, JQuery**

June 2015 - July 2016 | Software Engineer, **Samsung Research Institute Bangalore** (Bangalore, India)
- Developed I/O modules in C++ on an automated caching software tool called Autocache.
- Created a web interface for the Autocache stand-alone application with prototype framework.
- Discussed implementation plan of flushing cached data into secondary storage drives.
- Led in the setup of debug environment for kernel debugging in RHEL.

Tech stack | **C++, Jenkins, Visual Studio, Git**

Projects

- **Slack Bot**
  - Developed a resilient, micro-service based natural language aware bot for Slack app.
  - Integrated NLP module wit.ai, to invoke updated query parameters based on application.
  - Implemented geocoding and time calculations and also monitoring services.
- **Machine Learning**
  - Implemented linear regression, multinomial logistic regression and KNN using Python Numpy libraries.
  - Calculated the accuracy of each algorithm on the UCI Wine Quality dataset and MNIST datasets.
  - Developed a multi-layer perceptron neural network with relu and softmax non-linearities.
- **Limerick Detector**
  - Built a limerick detector for the poem of form AABBA line pattern using Python.
  - Given data is tokenized and processed using NLTK corpus cmu dict.
  - Count of syllables are used to match rhyming words ending in each line.
- **Finite State Automata**
  - Developed Soundex calculator, a phonetic algorithm from NLTK Finite State Transducers.
  - It is used to represent and store names as pronounced in English.
  - Constructed an FST to translate given Arabic numeral into corresponding French string.
- **Author Identity**
  - Implemented authorship identification on lines of peotry written by the corresponding authors.
  - Improved the accuracy of Naive Bayes classifier by performing feature engineering.
- **Parser**
  - Built a constituency parser trained from ATIS portion of Penn Treebank.
  - Constructed a grammar from the binary trees along with individual probabilites and most frequent rules.
  - Implemented CKY algorithm to parse input sentences with grammar and evaluated its F1 score.