VENKATA KARTEEK PALADUGU

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EDUCATION

- **Rochester Institute of Technology**, Rochester, NY *2019-Expected Dec 2021*
  Master of Science in Computer Science, GPA: 4.0/4.0
  Merit-based Academic scholarship:75%
- **Indian Institute of Technology**,Jodhpur, India *2012- 2016*
  Bachelor of Technology in System Science

TECHNICAL SKILLS

- **Languages:** Java, Python (Pandas, Numpy, Matplotlib) SQL, JavaScript, HTML, CSS, MATLAB
- **Database:** Postgres, MySQL, Oracle, MSSQL
- **Libraries:** Spring Boot, Junit
- **Tools:** Tomcat, Git, Jenkins , PyCharm, Eclipse, Jupyter Notebook

EXPERIENCE

Graduate Teaching Assistant
Rochester Institute of Technology *Aug 2020 – Present*

- Conducted recitation sessions for students in the courses related to Java and Python.
- Conducted virtual mentoring hours to mentor students regarding their labs and assignments.

Software Engineer
GGK Technologies Pvt. Ltd., Hyderabad, India *Nov 2016 – Aug 2019*

- Designed and developed a self-service business intelligence web-app analogous to Tableau or Power BI using Java/Spring MVC, AngularJS 1.5(HTML, CSS, JavaScript, jQuery) and SQL.
- Developed APIs for features like subscription of reports, row level security in models, data modelling through custom SQL queries, calculated column operations, filtering of data.
- Used OAUTH2 and iframe-iframe communication for integrating the app with external app which enables this product to be used as a plugin in a different application.
- Reduced a significant amount of time (10-8sec to 2-4sec) for data to be extracted and visualized by using efficient algorithms, pooling connections and optimizing queries.
- Awarded Star of the month for impressive performance and attitude.

PROJECTS

GPS Data Analysis *Dec 2020*

- Cleaned and structured the data from an Arduino micro-controller to readable DataFrame format.
- Removed anomalies and developed a model to identify stop signs, left turns and right turns using several decision stubs to classify.
- Visualized data in Google Earth using KML. (Python, Pandas, Matplotlib)

Classifying Hand Written Digits *Nov 2020*

- Trained a three-layer perceptron classifier with output layer being softmax layer to classify 10 digits in MNIST dataset.
- Used one hidden layer with 32 hidden nodes and trained the model on MNIST training set by using cross-validation and L2 regularization.
- Tested the accuracy on MNIST test set and achieved an accuracy of 94%.

Nuclei Segmentation: *Aug 2020*

- Analyzed different images of Nuclei and then preprocessed the image in MATLAB with appropriate selection of color channel and morphological operations.
- Segmented the Nuclei from background through global and local thresholds using Otsu's method.
- Classified Nuclei into isolated and clumped Nuclei using ellipses for detection as clumped Nuclei needs to be processed differently.
- Separated clumped Nuclei using marked watershed algorithm getting markers from a sophisticated single pass voting algorithm.

Language Classification: *Apr 2020*

- Developed and trained a decision tree and adaboost using 10 most important features that best distinguish the two languages.
- By comparing accuracy of adaboost and decision tree, finally chose adaboost as it has higher accuracy among both.Achieved 98.94% accuracy based on testing of 2000 untrained sentences.

Data Minining on Yelp Dataset: *Apr 2020*

- Analyzed and designed ER model from the YELP data and later integrated into POSTGRES.
- Derived meaningful data like businesses based on cities which have received reviews consisting words love and like.
- Later Cleaned and Integrated the data into MONGODB and did itemset mining using Apriori algorithm in PYTHON and found popular cuisines among restaurants in all popular cities in United States.
- Derived appropriate Association rules to predict restaurants having certain type of cuisines might also be having another cuisine.