PRAJVAL BAVI
UNC CHARLOTTE
Seeking **Full-Time Opportunity** in **Machine Learning/Data Science.**
University Terrace Drive, Charlotte, NC **pbavi@uncc.edu** 980-474-0291

EDUCATION

University of North Carolina at Charlotte Charlotte, NC
Master's in Computer Science May 2019
University of Pune Pune, India
Bachelor in Electronics and Telecommunications May 2013

COURSEWORK Machine Learning, Deep Learning for Computer Vision, Natural Language Processing, Computer Vision, Cloud Computing for Data Analysis, Intelligent Systems, Algorithms and Data Structure, Database Design.

SKILLS Python, R, C++, SQL, Linux, AWS, Keras, TensorFlow, PyTorch, NumPy, Pandas, OpenCV, NLTK, Spacy, Gensim, CoredNLP, Scikit-Learn, Spark, Hadoop.

CERTIFICATIONS Deep Learning Specialization (Coursera)

WORK EXPERIENCE

Graduate Teaching Assistant Aug 2018 - Present
Graduate Research Assistant Jan 2018 - May 2018
University of North Carolina at Charlotte

- Submitted a paper "Deep Learning Based Urban Analytics Platform: Applications to Traffic Flow Modeling and Prediction" in MUD3 Workshop 2018 held in London.
- Worked on Anomaly Detection. Currently exploring the use of Gating Networks in Meta Learning Shared Hierarchies in Reinforcement Learning.
- Implemented a client-server model for customized 1-card Poker game for training RL Agent and deployed on Heroku.

Data Science Intern
Stock Snips. Inc, Pittsburgh, PA May 2018 - Aug 2018

- Improved attribution of snippets in news article to a public company using NER, POS Tagging and Coref resolution to implement a new algorithm.
- Implemented a heuristic based module to extract the public companies relevant to a news article improving the extraction of companies by a factor of 50%.
- Optimized and improved performance of deduplication module for new articles by a factor of 10.
- Forecasted the stock price using exponential smoothing of discrete time-series data having the stock news data.

Senior Member of Technical Staff
Mojo Networks, Pune, India Sept 2015 - July 2017

- Designed and built statistical models and feature extraction systems for gaining insight into Access Point Performance and predict various parameters which have impact on performance using Pandas and NumPy.

ACADEMIC PROJECTS

Job Recommendation System (*Python, Spark, NumPy, Pandas, NLTK*) Nov 2018 – Dec 2018

- Implemented Naïve Bayes, Logistic Regression, K-means in Spark for predicting salary and clustering jobs.
- Built content-based recommendation system to find similar jobs using user's resume and job description.

Autonomous Boat Vision System (*Keras, TensorFlow, Python, NumPy*) Sep 2018 – Oct 2018

- Working with LaunchLKN, a Charlotte based startup to build real-time hand waving detection using pose estimation.
- Achieved accuracy of **98%** and **F1 score of 99%** on KARD dataset.

Detecting Drowsiness in Drivers (TensorFlow, Python, NumPy) Aug 2018 – Present

- Trained Resnet-50 to classify the video using frame majority vote. Added LSTM layer to capture the temporal feature with **95%** accuracy on NTHU dataset.
- Trained DCGAN to make more robust classifier for the same dataset (Currently Working).

Urban Analytics Platform (Keras, Python, NumPy, Pandas, Matplotlib, Web scraping) Feb 2018 – May 2018

- Developed an end-to-end system for ingesting multiple data sources and processing them via deep neural network models (LSTM) to predictions ETA of traffic flow with **RMSE of 4.01**.
- Wrote a web scrapper to collect data continuously from Twitter, Waze, OpenWeather and Charlotte City. Distributed and synchronized scrapping and collection process on multiple computers.

Insurance Fraud Detection (Python, Scikit-learn, NumPy, Pandas, Seaborn, Matplotlib) Jan 2018 – May 2018

- Prototyped and tested predictive models for finding fraud claims submitted using hierarchical clustering.
- Performed EDA using Matplotlib and Seaborn to find relevant trends and designed new features to increase the accuracy of the clustering of fraud claims.

Recommendation System for Documents (Python, Scikit-learn, NumPy, Pandas) Oct 2017 - Dec 2017

- Built a recommender system to provide news suggestion (similar and surprising) to a user.
- Used Topic modelling and Word Embeddings to train SVM & Random Forest (Scikit-learn) to classify documents.