Pranav Manjunath

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As an interdisciplinary data scientist with expertise in AI/ ML, I am passionate about transforming data into insights, provide innovative solutions to solve complex real-world problems, build productive collaborations and lead by example.

Skills

Programming Languages: Python, R, SQL (MySQL and Postgres), C

Machine Learning Concepts: Deep Learning (Neural Networks), Computer Vision, Natural Language Processing, Supervised Unsupervised and Reinforcement Learning, Survival Analysis, Time Series Analysis, PCA

AI/ML, Visualization, Cloud Tools: PyTorch, Tensorflow, Keras, Sckit-learn, Jupyter, GIS (GeoPandas), PyCox, PySurvival, NLTK, DPLYR, Tableau, Microsoft PowerBI, Github, AWS, GCP, Docker, MLOps

Leadership: Co - President of Duke Interdisciplinary Product Management Club, Co - Founder of CARE - Career Counselling Services, Co - Founder of an internationally acclaimed violin duet band with my brother, Boston Brothers. Part of the organizing committee of TEDxPESITBSC, international conferences, cultural, and music programs in PESIT.

Education

MS in Interdisciplinary Data Science (GPA: 3.957) Aug 2020 – May 2022
Duke University *Durham, NC*

BE in Computer Science and Engineering (Certificate of Distinction) Aug 2016 – May 2020
Visvesvaraya Technological University (PESIT) *Bangalore, India*

Experience

Capstone Researcher - ViacomCBS/MTV Aug 2021 – Present
Duke University *Durham, NC*

- Working with MTV to find solutions to increase the voter turnout rates amongst youth in the US elections. Specifically, testing a hypothesis that proximity of polling location to universities has an inverse correlation with the student voter turnout rate.

Health AI Researcher - +DS Program May 2021 – Present
Duke University *Durham, NC*

- Working with Prof. Michael Pencina, Prof. Ricardo Henao and a team of Duke Researchers on a NIH grant project to build a Stroke Survival Predictive Model.

Co President - Duke Interdisciplinary Product Management Club May 2021 – Present
Duke University *Durham, NC*

- Co-founder of a club at Duke to bridge Product Management, Data Science, and Machine Learning. Main responsibilities: Organize Technical Workshops, Seminars, Datathons, Producthons, Strategic Case Competitions

Project Manager - Data+ May 2021 – Aug 2021
Duke University *Durham, NC*

- Managed a team of Duke undergraduate students to develop machine learning features that can be used to identify unknown web attacks.
- Outcome incorporated into Duke's IT security infrastructure to help protect the network.

Data Scientist Summer Intern May 2021 – Aug 2021
Advance Auto Parts *Raleigh, NC*

- Clustering and topic modelling customer product reviews into key themes utilizing NLP unsupervised algorithms. Used by business leaders to address customer pain points and trends
- Feature engineered product, customer, location and vehicle data from various sources leveraging SQL and Python
- Presented results and recommendations to stakeholders, company technical interest group and c-suite executive.

Graduate Teaching Assistant Dec 2020 – Present

Duke University *Durham, NC*

- **Programming for Data Analytics (Fuqua School of Business) - Prof. Brian Cozzi**: Organize weekly office hours to help students with coursework and teach them concepts in Python and R Programming.
- **Data Engineering in the Cloud - Prof. Noah Gift**: Help structure the course, grade and review assignments, organize office hours to help students with the coursework.
- **Data Analytics and Applications (Fuqua School of Business) - Prof. Mattia Ciollaro** : Organize weekly office hours to help students with coursework and teach them concepts in Machine Learning.
- **Cloud Computing for Data Analysis - Prof. Noah Gift**: Help structure the course, grade and review assignments, organize office hours to help students with the coursework.
- **Python Winter Course and MIDS Bootcamp - Prof. Andrew Hilton and Prof. Genevieve Lipp**: Organize office hours for students to help teach them Python Programming.

Machine Learning Intern Jan 2020 – Mar 2020

Microland Limited *Bangalore, India*

- Worked on implementing NLP techniques to effectively cluster in-house generated tickets with appropriate topic modeling (Python).
- Used HTM to identify anomalies in server data (Python).

Trainee Decision Scientist Intern Jan 2019 – Apr 2019

Mu Sigma *Bangalore, India*

- Worked collaboratively on a project with a multinational pharmaceutical client in developing a plug and play analytical and statistical platform to implement data pre-processing and regularized regression models. The platform was built on R and R Shiny.

Projects

Breast Cancer Image Classification - Computer Vision Project Aug - Dec 2021

- Identifying Data Augmentation on Breast Cancer Images to improve Deep Learning model performance

Painting Classification - Computer Vision Project Jan - May 2021

- Used CNN-XG Boost Model to classify and predict paintings into its respective genre and artist

Small World Experiment - Reinforcement Learning Project Jan - May 2021

- Trained a Q-Learning Model to determine the shortest connectivity between two unknown individuals

Facebook Promotional Strategy - AB Testing Jan - May 2021

- Designed, Implemented, and Analyzed Music Promotional Ads on Facebook

Real Time Prediction of Stock Prices using Time Series Modelling (AWS) Aug - Dec 2020

- Created a Dash Application hosted on AWS that Predicts Stock Prices through ARIMA

Prediction of Genre based on Spotify Musical Features Aug - Dec 2020

- Built an R-Shiny Application that predicts the genre of a song and display similar songs through similarity matching

BERT - Multi Emotion Classification of Social Media Comments Aug - Dec 2020

- Built a Python Application that can predict and display the emotion of Social Media Comments

PlaceMeUp - Job Placement ML Prediction Platform Aug 2019 - May 2020

- Built a Supervised ML Pipeline that can be used to predict Undergraduate student jobs based on their scores

EyesPRO - Protect Your Eyes Jan - May 2018

- Android Mobile Application to help reduce myopia in children. Converted into a research paper and won the **Best Paper Award** at RISE Conference 2018.

Publications

Springer Publications - Book Chapter in Algorithms for Intelligent Systems Aug 2019

Pranav Manjunath & Kushal Naidu

Title: **Apriori Algorithm and Decision Tree Classification Methods to Mine Educational Data for Evaluating Graduate Admissions to US Universities** - Paper Link

International Journal of Scientific Research in Science and Technology May 2018

Pranav Manjunath & Nimisha V Arun

Title: **EyesPro - Protect your Eyes** - Paper Link