

Anand Raj

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EDUCATION

Master of Science, Data Science

George Washington University

Aug 2023 – May 2025 (Expected)

GPA: 4.00

Bachelor of Engineering, Electrical and Electronics Engineering

RNS Institute of Technology

Aug 2017 - Sep 2021

CGPA: 7.68

TECHNICAL SKILLS

Programming languages: R, Python, and C.

Database: SQL, MongoDB, and Neo4j (Graph Database).

Machine Learning Algorithms: Linear/Logistic/Lasso/Ridge Regression, Decision Trees, Naive Bayes, KNN, Random Forest, Stacking, SVM, XGBM, Bagging Methods, Cascading Classifiers.

Data Mining: PCA, t-SNE, Recommendation Systems & Matrix Factorization, and Clustering - K Means, Hierarchical, DBSCAN.

Time series analysis/Forecasting: AR, ARMA, ARIMA, and SARIMA.

Deep Learning: Artificial Neural Networks and Convolutional Neural Networks.

Product Development: Agile Methodology, Product Life Cycle, JIRA for Ticketing, Git, GitHub.

Others: Tableau, Flask, AWS EC-2, Streamlit and Heroku.

PROJECTS

Quora Question Pair Similarity [↗](#)

- Applied Natural Language Processing techniques to determine if two questions have similar meaning.
- Conducted comprehensive data analysis, implemented feature engineering, and generated 33 new features.
- Featurized text data using Tf-Idf word2vec, compared multiple ML models and found XGBoost performed the best, minimizing log loss.

Sentiment Prediction from Amazon Reviews [↗](#)

- To predict if a review of a product given by user is positive or negative.
- Performed extensive text cleaning and featurizing text data using Bag of Words, Tf-Idf and Tf-Idf word2vec comparing these features with different ML Models achieving an AUC score of 0.90 using SGD Classifier.
- Deployed using Flask on AWS EC-2 virtual machine. Link to website: [↗](#)

New York City Taxi Trip Duration Prediction [↗](#)

- Aims to predict the trip duration time given pick up and drop off co-ordinates of New York City. (~1.5 million rows)
- Performed extensive cleaning and conducted comprehensive data analysis including time series and demand analysis.
- XGBoost performs the best with an RMSE of 224 seconds ~ 3.7 minutes.

RESEARCH PUBLICATIONS

Performance Comparison of Prediction Algorithms for Forecasting of Wind Power Generation [↗](#)

June 2022 – Sep 2022

Facial Feature Extraction and Emotional Analysis Using ML [↗](#)

Aug 2022 – Jan 2023

WORK EXPERIENCE

Technical Writer, TowardsAI & Stackademic

Dec 2023 - Present

Authored engaging technical blogs focused on Artificial Intelligence and Autonomous Cars. [↗](#)

Software Engineer, Continental AG.

Sep 2021 - Aug 2023

- Worked on ADAS (Advanced Driving Assistance Systems) and developed products like EBA (Emergency Brake Assist), and RPCP (Rear Pre-Crash Predict) for clients Mercedes Benz, Volkswagen, and BMW in agile methodology.
- Algorithm Development in C and Testing using GTest.
- Performed reverse engineering for fixing bugs using the C programming language and providing problem-solving solutions to customer-reported problems in the simulation environment. Implemented automation using Python scripting.

Data Science Intern, Innodatatics

Jun 2020 – Aug 2020

- Collaborated with a dynamic team to conduct in-depth data analysis utilizing Python and Tableau, providing valuable insights into the client's Sales data.
- Analyzed user behavior, temporal trends, and distinctions between Free and Paid users.
- Formulated data-driven recommendations and compelling narratives, and communicated to our client.

Intern, Defense Research Development Organization

Jan 2020 - Feb 2020

- Worked on Validation and Verification Process Standards in avionics hardware.
- Collaborating with different teams and Reviewing standards of all the Validation and verification processes.

CERTIFICATIONS

- Data Science Professional Certification by ExcelR, 2020.
- Neural Networks and Deep Learning Certification by DeepLearning.ai, Coursera, 2020.
- Data Fusion in Autonomous Driving using Deep Learning by Continental Autonomous Mobility, 2022.
- Machine Learning Certification by Continental Autonomous Mobility, 2022.