

Amandeep Rathee

Data Scientist • Machine Learning Specialist • Cloud Certified

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EDUCATION

- **Duke University** Durham, NC
Master of Science in Data Science; GPA: 3.62/4.0 Aug 2019 – May 2021
- **Visvesvaraya Technological University** Bangalore, India
Bachelor of Science in Computer Science; First Class with Distinction Aug 2013 – May 2017

TECHNICAL SKILLS

- Data Analysis, Machine Learning, Deep Learning, Computer Vision, Text Analysis, Cloud Computing, Databases.
- **Languages:** Python, R, Java, C++, SQL.
- **Frameworks:** Numpy, Pandas, Scikit-Learn, Keras, TensorFlow, PyTorch, Onnx, SciPy, NLTK, Gensim, Tidyverse.
- **Technologies:** Git, Hadoop, Spark, AWS, Google Cloud Platform, Docker, Kubernetes, CI/CD, Tableau.
- **Certifications:** AWS Certified Cloud Practitioner (ID: 5ZMJ32BDLJFEQF9Y)

RELEVANT EXPERIENCE

- **Data Scientist** Seattle, WA
Research AI LLC - Part-time Aug 2020 - Present
 - Developed a reinforcement learning model that solves the NP-hard capacitated vehicle routing problem using Python.
 - Implemented TRPO algorithm in PyTorch to find the shortest trip distance for a fleet of 20 delivery trucks.
 - Created a tool that automatically tunes hyperparameters of a reinforcement learning model using Bayesian search.
- **Machine Learning Intern** Morrisville, NC
LifeOmic - Full-time May 2020 - Aug 2020
 - Reduced 70% time from a document denoising pipeline by developing a computer vision-based machine learning model.
 - Designed experiments and collected 3 hours of EEG data to find if meditation impacts brain activity.
- **Data Scientist Intern** Durham, NC
Center for Genomics and Computational Biology, Duke University - NSF-funded Project Nov 2019 - May 2020
 - Developed an extract, transform, load (ETL) pipeline from a Web Ontology Language (OWL) database in R.
 - Added functionality to RPhenoscape to find mutual exclusivity of given phenotypes using 100 years of past data.
- **Data Science and AI Content Strategist** Bangalore, India
UpGrad Education - Full-time Jul 2017 - May 2019
 - Identified factors of customer churn for India's top telecom company (with 450M customers) using machine learning.
 - Drove the net promoter score from 25% to 60% by developing data science for 10,000+ students.
 - Increased the revenue of online AI program by \$400,000, and helped it become the top AI program in 2018 across India.

DATA SCIENCE PROJECTS

- **Video-based NLP** Built a serverless application on the cloud that processes natural language from a YouTube video and provides video sentiment and a list of topics discussed in the video.
Skills: Python, Flask, Serverless Engineering on AWS, YouTube API (May 2021)
- **Recommendations to NASCAR Teams** Analyzed over a million rows of proprietary NASCAR lap data to make performance recommendations to NASCAR teams. This included recommendations and visualizations on pit strategy, driving style and track-specific insights.
Skills: Python, Tableau (April 2020)
- **Multi-label Human Classifier** Trained a convolutional neural network that identifies a person's gender, age, emotion, and apparel.
Skills: Python, TensorFlow, Keras, NumPy, Multi-label Classification (December 2019)
- **Playstation vs Xbox** Conducted statistical analysis to determine that PlayStation variant of a game has 30% higher sales than the Xbox variant.
Skills: R, Exploratory Data Analysis, Regression Analysis (November 2019)
- **Political Sentiment Analysis** Analyzed public opinion on Demonetization (a controversial 2016 currency ban in India) using Twitter data, and found that 50% of the tweets were neutral, 30% were in favor and 20% were against the ban.
Skills: R, Text Scraping, Natural Language Processing, Twitter API (November 2016)