

AMANDEEP RATHEE

amandeep.rathee@duke.edu
984-245-5133

Data Scientist • Kaggle Expert
Durham, NC • Work Authorization: OPT

linkedin.com/in/arathee2
github.com/arathee2

PROFILE SUMMARY

Accomplished data scientist with deep expertise in machine learning and AI for computer vision and natural language processing. Successful track record of building top-rated online data science courses. Quick learner and an avid Kagglers with an all-time rank within the top 0.5% among all users.

EDUCATION

• Duke University, Durham, NC

Master in Interdisciplinary Data Science; GPA: 3.7/4.0

August 2019 – May 2021

Relevant coursework: Linear Algebra, Statistical Modeling, Machine Learning, Data Visualization, Text Analyses and Data Ethics.

• Visvesvaraya Technological University, Bengaluru, India

Bachelor of Engineering in Computer Science and Engineering; GPA: 71/100

August 2013 – June 2017

Relevant coursework: Data Structures in C, Design and Analysis of Algorithms, Operations Research, Discrete Mathematics, UNIX Programming, Database Systems, Web Programming, Software Engineering and Testing.

SKILLS

- **Languages:** Python, R, SQL, Java, C++, MATLAB, Javascript, HTML CSS
- **Tools:** Git, \LaTeX , UNIX, Tableau, pandas, numpy, matplotlib, seaborn, keras, scikit-learn, tidyverse, caret
- **Data Analysis:** Regression Analysis, Hypothesis Testing, ANOVA, Hierarchical Modeling, A/B Testing, Data Visualization
- **Machine Learning:** Regression, Decision Trees, Bagging, Boosting, Support Vector Machines, Clustering, PCA, Deep Neural Networks, CNNs, RNNs, LSTMs, GRUs, GANs

WORK EXPERIENCE

• Machine Learning Intern, LifeOmic

Morrisville, NC; May 2020 - August 2020

- Building quantized version of a image-denoising CNN model that reduces the time, space and power consumption of the regular CNN model by 4x.

• Data Science Intern, Computational Biology, Duke University

Durham, NC; Nov 2019 - Apr 2020

- Created an open-source R package that computes mutual-exclusivity and semantic similarity among various traits in different species using ontology-based data. Project is NSF-funded and is a collaborative effort with three other universities in US.

• Machine Learning & AI Content Strategist, upGrad

Bengaluru, India; Jul 2017 - May 2019

- **Course Content Creation:** Conceptualized and implemented learning goals, lesson plans, assessments and programming assignments that improved course ratings of the *Data Science* and *Machine Learning & AI* courses by 15% and job placement rate of students of the programs by 133%.
- **Machine Learning & AI Courses:** Created modules on deep neural networks, machine learning, natural language processing and Bayesian networks that increased revenue of this one-year online program by \$500,000 and helped it become #1 in India.
- **Data Science Courses:** Built high-quality data science courses through collaboration with professors, subject matter experts, product managers, and editing and tech teams, and drove the net promoter score from +25% to +60% in under a year as a result.
- **Leveraged knowledge** in CRISP-DM framework, data analysis, visualization, and machine learning and AI by creating projects such as *Telecom Churn Analyses*, *Patient Readmission Prediction*, *Neural Network Story Generator* and *Email Spam Detection*.

• Data Science Consultant, Upwork

Bengaluru, India; Oct 2016 - Jun 2017

- Deployed data science projects such as *Gesture Recognition*, *Server Downtime Predictor* and *Credit Card Fraud Detector* with an average project rating of 4.97/5 for clients around the globe in computer vision, IT and finance.

PERSONAL PROJECTS

- **Helmet Detection on Two-wheeler Riders Using Machine Learning:** An automated machine learning system developed for the local traffic department that detects riders on a two-wheeler without a helmet. Also published as a paper in IJAECS journal.
- **Human Pose Detector:** Trained a depth-wise separable convolutional neural network with 70% accuracy to detect human poses to infer their emotion, body language and economic status.
- **Playstation vs Xbox:** Conducted statistical analysis to determine that PlayStation games sell 30% more than Xbox games.
- **Kaggle:** Ranked #33 among 100,000+ data science practitioners on Kaggle as a result of winning one gold, one silver and seven bronze medals by sharing insightful analyses using open datasets.
- **Solar Panel Detection:** Trained a CNN classifier with an AUC of 0.992 to detect solar panels in satellite aerial imagery.
- **Sentiment Analysis:** Analyzed public opinion on Demonetization – a highly controversial currency ban that happened in India in 2016 – using Twitter API, and found that 50% of the tweets were neutral, 30% were in favor and 20% were against the ban.