Vinay Dinkar Kale

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EDUCATION

Columbia University — *NYC, New York*
M.S. Data Science — *Sep 2017 - Dec 2018*
Relevant Coursework: Probability Theory, Statistics, Machine Learning, NLP, Deep Learning, Algorithms, Data Storytelling

Indian Institute of Technology Madras (IITM) — *Chennai, India*
B.Tech Mechanical Engineering, M.Tech Product Design — *Aug 2011 - May 2016*
Relevant Coursework: Computational Engineering, Time Series Analysis, Regression Models, Operations Managment

SKILLS

- **Languages**   Python, R, SQL, Spark, Scala, Julia, C, C++, LaTeX
- **Frameworks**   Scikit, Dask, Plotly, Dash, TensorFlow, Keras, PyTorch, RShiny, Django, Flask, Tableau, MS Office
- **Platforms**   Docker, GIT, Airflow, MySQL, Linux, AWS, GCP, Microsoft Azure, Heroku, Jenkins, Travis

EXPERIENCE

Amazon (AWS) — *Seattle, USA*
Data Scienctist II — *July 2021 - Present*
- Working on development of state of the art data pipelines, forecasting models and model evaluation systems for prediction of Contact Volume and Average Handling Time Drivers across the AWS Connect Science team.

Capital One — *NYC, USA*
Senior Data Scientist — *Feb 2019 - July 2021*
- Developing robust and reusable next-gen valuation, risk and fraud XGBoost ML model pipelines reaching 100M+ customers, with estimated incremental value of $35M per year.
- Architected agile and automated monitoring framework for valuation models, decreasing the time required to complete quarterly compliance-monitoring from a week to 8 hours.
- Built python libraries for Data Sourcing and Cleaning with focus on design, re-usability and user experience. Went through multiple refactor cycles to keep it efficient and up-to date.

Spotify — *NYC, USA*
Data Science Intern — *Jun 2018 - Aug 2018*
- Working with cross-functional team of user researchers and product analysts, developed a fan-artist pair segmentation pipeline which quantifies the affinity for 20 Billion fan-artist pairs.
- Analyzed how a new feature affects fan-artist journeys via by statistical analysis on data from AB tests.

ZS Associates — *Pune, India*
Data Scientist — *June 2016 - July 2017*
- Developed marketing-mix modeling pipeline using multivariate regression for client in retail media sector. Increased Total ROI by 15 percent and secured engagements for 3 similar additional projects.
- Built a novel Patient Clustering Engine for pharmaceutical clients using patient-data vector embeddings trained on sequential big medical data. This served as input to several patient-level classification models.

RESEARCH

CVPR Conference 2018: Traffic Surveillance Research Paper
- We introduce novel usage of Mask-RCNN algorithm for vehicle detection, speed estimation and vehicle tracking for video footage of cars in highway. Achieved 100 percent detection rate and 7.97mi/hr speed estimation error.

PROJECTS

Euphony: Python Package on PyPI
- Built a utility which lets users track code completion. With a simple wrapper, it plays classical music while the code is executed. Users can choose among range of artists.

Market-Monitor: Live web-app to monitor financial markets
- Developed an app which lets user study stock and options prices with latest news for any company, all in one place. It uses Yahoo Finance APIs for data, Dash library for visualization and Heroku for app deployment.

VOLUNTEER EXPERIENCE

Organizing Committee, PyData Conference NYC — *June 2019 - Sep 2019*
Led team for reviewing proposals and spearheaded the Diversity Scholarship Initiative

Teaching Assistant, Columbia University — *Jan-Apr/Aug-Dec 2018*
COMS 4995 Applied Machine Learning, COMS 4996 Applied Deep Learning.