POONAM VARKHEDI

email: pvarkhed@ucsd.edu | 408-207-7880 |
LinkedIn: poonam-varkhedi | website: pvarkhedi.github.io

EDUCATION: UC SAN DIEGO | B.S. Data Science, Minor in Economics -Management Science | June 2020

WORK EXPERIENCE

VIASAT

SOFTWARE ENGINEER - MACHINE LEARNING — Feb '22 – Current

- Researched and implemented a Tree-Based Convolutional Neural Network (CNN) for checking network configuration's validity and anomalies via supervised learning.
- Tuned the hyperparameters of the model to improve accuracy and learning rate of the CNN.

DATA SCIENTIST – SUPPLY CHAIN MODELLING — Feb '21 – Feb '22

- Modeled the aftermarket supply chain process using the ARIMA model and Monte Carlo simulation. Used the model to forecast future velocity of our repairs' pipeline to allow for management to better allocate resources.
- Took over ownership of slack bot development. This entailed development in a CI/CD methodology. Slack bots utilized lambda functions that were triggered by a webhook. These functions queried Oracle and pushed logs to S3.
- UCSD HDSI Mentor: Helped data science undergraduate students understand networking and data science concepts for their capstone projects.

GOSITE | DATA SCIENCE/ DATA ENGINEERING INTERN — Feb '20 – Oct '20

- Designed and developed the company's data infrastructure from scratch by building ETL pipelines ingesting from multiple sources and designing RDBMS schemas in Google BigQuery to have a centralized data warehouse with clean and usable data which enable all parts of the company to draw insights from.
  - Built automated batch and streaming data pipelines with python transformation scripts through writing Apache Airflow DAGs.
  - Troubleshooted Node.js tracking calls to ensure accurate customer engagement data was being recorded.
- Created a web-scraper and feature engineered data to gather actionable leads for sales team, enabling them to reach a higher closing rate.

SD SUPERCOMPUTER CENTER | DATA ANALYTICS INTERN — Nov '19 – Feb '20

- Parsed through daily Apache access log data and Google Analytics data to extract potential clients and to evaluate current client use of our services.

UCSD CSE DEPARTMENT | TUTOR for Professor Gary Gillespie — July '17 – Dec '17

- Classes: Data Structures (Java, C, C++) & Software Tools and Techniques (Linux, Bash).
- Helped students to understand core concepts such as object-oriented programming, programming languages, data structures, algorithms, bash scripting, and effective debugging strategies using gdb.

PERSONAL DEVELOPMENT PROJECTS

Feature Engineering w/ Spark | PYTHON, APACHE SPARK, AWS EC2

- Spun up an Apache Spark cluster on AWS EC2 to process 25GiB of data.
- Feature engineered data by imputing null values, flattening data, and one-hot encoding values for PCA.
- Used Spark DataFrame to optimize runtime by persisting data in Spark memory when applicable.

Decision Tree Classifier on Sales Data | PYTHON, SCIKIT-LEARN, PANDAS

- Wrote a decision tree algorithm using the gini impurity coefficient, information gain, and recursion on sales data and compared the performance of my algorithm with the sklearn decision tree model.

Support Vector Machine | PYTHON, SCIKIT-LEARN, PANDAS

- Explored how SVMs work by implementing my own logic using a linear kernel to transform 1D data to 2D.
- Created another SVM using the sklearn library to classify a binary multivariate dataset on wine ratings.

TECHNICAL SKILLS

LANGUAGES: Python, Java, C, C++, Golang, JavaScript, Bash **OTHER:** SQL, Spark, AWS, Docker, UNIX OS, Git, HTML, Gitlab
RELATED COURSEWORK: Networking, Computer Vision, Statistics, Artificial Intelligence, Data Structures and Algorithms