Shreejaya Bharathan

shreejayabharathan@gmail.com | 916 586 4999 | San Francisco, CA
linkedin.com/in/shreejaya-bharathan

EDUCATION

MS in Data Science, *University of San Francisco*   Jun 2020
Relevant courses: Machine Learning, Deep Learning, Time Series Analysis, Data Ethics, Distributed Computing (Spark), SQL, Software engineering, Design of experiments (A/B Testing), Product Analytics, Data Structures and Algorithms

Bachelor of Technology - Engineering, *National Institute of Technology, Tiruchirappalli*   May 2017
Relevant courses: Linear Algebra, Programming, Statistics, Operations Management

WORK EXPERIENCE

Machine Learning Engineer Intern, *Manifold AI, San Francisco*   Dec 2019 - present
System identification using machine learning
- Developed a Python library which utilizes machine learning to solve for the parameters of dynamical systems defined by differential equations.
- Built a module for time-series data simulation of dynamical systems by solving differential equations given a set of parameters.
- Extended the machine learning pipeline to incorporate deep learning architectures such as CNN using PyTorch.

Data Scientist- Decision Analytics, *EXL Services, Bangalore*   Aug 2017- Apr 2019
Customer experience analytics for a major energy and utilities company in the US
- Automated customer survey classification and reduced man hours by 90% by building a multi-class text classification model achieving an accuracy of 0.83.
- Reduced customer complaints by 20% through a machine learning based intervention which predicts the likelihood of complaints.
- Built a UX dashboard which identifies customer dissatisfaction in collaboration with the Customer Experience team.
- Increased customer retention by 13.8% through identifying and computationally modeling the primary cause of churn.

Data Analytics Intern, *Ernst & Young LLP, Chennai*   May 2016 - Jul 2016
Data visualization for tracking cybersecurity logs
- Created a dashboard using Splunk to monitor real-time event logs, generate alerts and keep track of license usage for the cybersecurity team at Ernst & Young LLP.

PROJECTS (Portfolio website - shreejayab.github.io)

Fake news detection website: *Increasing digital media literacy through a web application*   May 2020
- Created a website from scratch to detect fake news given the URL of a news article using machine learning.

Predicting short-term outcomes in critically ill patients: Predicting *the mean heart rate and arterial pressure*   Mar 2020
- Achieved an R2 score of 0.927 using lightGBM, Random Forest and XGBoost models on imbalanced time-series data.

Human Activity Recognition: *Using smartphone and smartwatch data to predict daily activities*   Jan 2020
- Implemented data pipeline in PySpark, leveraging Spark ML, H20, and Auto ML to train models on AWS EMR clusters.

Box office predictions (Kaggle competition): *Predicting the box office revenue of movies*   Oct 2019
- Built a scikit-learn pipeline, used Randomized search to perform hyperparameter tuning and ran 5-fold cross-validation to determine the best model and achieved an R2 of 0.85.

TECHNICAL SKILLS

Technologies: Python, SQL, Spark, PyTorch, AWS, Docker, MLFlow, git, Pandas, Scikit-Learn, Numpy, Scipy, NLTK, Spacy
Coding examples - github.com/ShreejayaB