Shruti Sharma

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EDUCATION

San Jose State University, College of Science — San Jose, CA
M.Sc. in Data Science — May 2023

- **Relevant Coursework**: Machine Learning, Mathematical Statistics, Big Data Analytics, Probability & Statistics, Linear Algebra, Calculus, Artificial Intelligence

Jamia Hamdard University — Delhi, IN
Bachelor Of Technology in Computer Science — May 2018

- **Relevant Coursework**: Artificial Intelligence, Data Mining, Database Systems, Operating Systems

PROFESSIONAL EXPERIENCE AND LEADERSHIP

Piri.ai — Delhi, IN
Consultant — Dec 2019 - Dec 2020

- Led the team and supervised areas of automation in current business workflows using python and machine learning
- Designed and developed Python scripts to connect 100+ hardware sensors to applications reducing 1000+ hours of manual effort.

Tata Consultancy Services
Chennai, IN
Machine Learning Software Engineer — Sept 2018 - Dec 2019

- Developed a system to triage production tickets/bugs based on client guidelines using machine learning with a 94% accuracy with agile methodology

SKILLS

- **Programming Languages:** Python, R, Scala, C, C++, JavaScript, HTML, CSS, SQL, Latex
- **Big Data & Machine Learning:** Spark, Hadoop, SQLDB, Python, MapReduce, Hive
- **Data Science & Miscellaneous Technologies:** A/B testing, Hypothesis Testing, ETL, Data science pipeline, Problem Solving, Algorithms,Analytical, Statistics, Time series, TensorFlow, Keras, Predictive Modelling, Experimental design, Hypothesis testing, Linux, OOP, OOD, APIs, Excel, Git

PROJECTS EXPERIENCE

Thymoma Cancer Classification — Feb 2022- Present
Research Project (Ongoing)

- Currently ongoing image analysis of WSI biopsy images to classify different type of rare thymoma cancer found in patients. The goal is to use patches of WSI images to detect the types of benign or malignant cancers

Malware Detection in Byte Sequence Data — Nov 2021 – Dec 2021
San Jose State University

- Utilized python to implement a supervised Machine Learning on byte histogram of the Malware Sequence. Used hardlimit and sigmoid with 1400 hidden layers to obtain an accuracy of 0.74
- Used ensemble voting classifier (Random Forest Classifier, AdaBoost, XGB Classifier and Extra Trees Classifier) to get an accuracy of 0.956

Self-Driving cars steering wheel angle prediction using CNN. — Sep 2021 - Dec 2021
San Jose State University

- Established a model to predict steering wheel angle referencing a famous NVIDIA research thesis
- Used pre-built CNN models along with the arctan activation to train on 25 mins of driving data
- Explored performed by using log-loss technique on the angular difference of the steering wheel and the road direction

Analyzing/Clustering Criminal Data using Hadoop and Mahout — Aug 2021 - Sep 2021
San Jose State University

- Used Hadoop along with MapReduce to perform aggregates on Chicago Criminal Data and find interesting statistics
- Used the crime location (latitude, longitude) to cluster crime using Mahout's K-means Clustering
- Was able to come up with 3 clusters defining different regions of Chicago Crime

Human Activity Recognition (India) — Jun 2021- Aug 2021
Independent Project

- Developed a Machine Learning model to detect general human activities such as Sleeping, Walking, Standing, Laying and Climbing. Used T-SNE for dimensionality reduction and Support Vector Machine to get an accuracy of 96.66%
- Also used a 2-layer Long Short-Term Memory (LSTM) model with an accuracy of 90%