

# Shiva Abhishek Varma Penmetsa

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## EDUCATION

### Master of Science in Data Analytics

*San Jose State University*

Aug 2020 – Dec 2022

*San Jose, CA*

### Bachelor of Technology in Computer Science and Engineering

*CMR College of Engineering and Technology*

Aug 2015 – May 2019

*Hyderabad, IN*

## EXPERIENCE

### Graduate Research & Teaching Assistant

*San Jose State University*

Jul 2021 – Present

*San Jose, CA*

- Planned a research project leveraging machine learning on data stored in NoSQL databases. Reviewing about 70-80 related works, finding their disadvantages, investigating the cause and working on problem solutions.
- Leading, mentoring, demonstrating 100 students with diverse backgrounds by grading assignments, familiarising concepts on SQL, MongoDB, Neo4J databases through technical demos, team projects. Held office hours to clarify students' doubts.

### Software Engineer

*Cloud4C Services*

Feb 2019 – Nov 2020

*Hyderabad, IN*

- Assessed stakeholders performance based on application data on SAP, Natural Language Processing, geographical variation, and developed dashboards to facilitate tracking, identifying trends, data analysis for 95% of users.
- Extracted data from various sources, involved in EDA to find outliers, saving 75% time in data preprocessing. Development of Adhoc reports, summarized data findings and processes to give quick insights and status.

### Data Science Intern

*Envision Enterprise Solutions*

Sep 2018 – Feb 2019

*Hyderabad, IN*

- Built a model to **extract keywords, features** from product reviews. Enhanced e-commerce website resulting in a 17% increase of customer survey score, achieved a 40% reduction in preparation time.
- Performed market analysis for reporting product price, **web scraping data** from E-commerce websites. Visualized KPIs, collaborated with teams on qualitative and quantitative analysis thereby increasing productivity by 55%.

## PROJECTS

### Face mask detection using 5 deep learning algorithms | *Colab, Xception, InceptionV3*

Aug 2021 – Dec 2021

- Detected face masks using CNN, VGG16, ResNet50 and categorized 2 image categories by minimizing risks and manual monitoring, increasing security. Evaluated results with ROC AUC curve, Mean average precision, Intersection Over Union.

### Movie Recommendation Systems with 5 techniques | *Content and collaborative filtering*

Aug 2021 – Dec 2021

- Performed data cleaning, EDA and gave recommendation based on movie title, users, items using KNN, matrix factorization methods (SVD, NMF) and Neutral networks. Attained RMSE of 0.7 using neural networks.

### Discovering phishing websites with 7 machine learning algorithms | *Random forest*

Jan 2021 – May 2021

- Trained models with 93% accuracy deploying Logistic Regression, Naive Bayes, SVM, XGBoost, Decision Trees, Neural Networks and evaluated supervised algorithms with F-1 Score, Kappa score, precision, recall, AUC metrics.

### US accidents analysis using AWS S3, Glue, Redshift. | *AWS, JuPyter, Tableau*

Jan 2021 – May 2021

- Executed data cleaning using ETL on raw datasets with merging large data from different data sources. Deployed AWS Glue Jobs to load data. Examined scenarios leveraging AWS Quicksight, AWS Sagemaker, achieved 97% accurate results.

### Donald Trump Tweets analysis from 2009 using Tableau. | *Kaggle, Tableau Public*

Jan 2021 – May 2021

- Published multiple visually appealing charts in an interactive dashboard to study popular phrases, most favorite and top mentioned tweets since 2009. Analyzed liked tweets based on different communities, platforms.

### Database design for movie booking with 50% social distancing. | *MySQL Workbench*

Aug 2020 – Dec 2020

- Modelled a database architecture for ticket booking by overcoming 50% potential risks utilizing SQL procedures, events, functions, debugging code, triggers for theatres, altering screening, sales according to business requirements.

### Financial stock price analysis with web scraping using Python3. | *Anaconda, BeautifulSoup*

Jan 2019 – May 2019

- Scraping financial stock value from Bloomberg website utilizing BeautifulSoup, reporting 5 input company stock price contribution with a sharable pie chart through an email for business analysis purpose.

## TECHNICAL SKILLS & CERTIFICATIONS

**Programming/Scripting Languages:** Python, SQL, C, C++, Java, R Programming, JavaScript, HTML, CSS

**Software Tools:** MS office, SAP Logon, Power BI, Apache Spark, Hadoop, Excel VBA, ElasticSearch, Kibana, Google BigQuery

**Data Science Libraries:** Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, Keras, Tensorflow, PyTorch, OpenCV

**Cloud Services:** Amazon Web Services, Oracle Cloud Infrastructure, ServiceNow, Google Cloud Platform, MS Azure

**Coursework:** Big Data Applications, Data warehousing, Data mining, Linux, Artificial Intelligence, Deep Learning, Mathematical and Statistical methods, Agile methodologies, Software Development Lifecycle, Data Engineering, Software Testing.