

# Ameya Chivate

## Associate Data Scientist

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## Objective

Technically advanced Associate Data Scientist with 4.10 years of expertise in designing, developing, and delivering data-driven solutions. Proficient in machine learning, data analysis, deep learning, natural language processing (NLP), AWS, and programming languages such as Python. Leverage my skills in AI and contribute to innovative, data-driven projects.

## Experience

### Associate Data Scientist

Harman International Pvt Ltd, India | Oct 2022 – Present

### Junior Data Scientist

U&D Square Solutions Pvt Ltd, India | Sept 2020 – Aug 2022

### System Administrator

Pinnacle Technology Pvt Ltd, India | May 2019 – Sept 2020



## Education

- Completed Post Graduate Diploma in IT Infrastructure, Systems and Security, CDAC, PUNE in Aug 2019.
- Completed Bachelor of Engineering in CSE from Walchand Institute of Technology (Solapur University) in May 2018.

## Certification

- Certification Course “AWS Certified Solutions Architect - Associate” with Amazon.

## Technical Skills

- Programming language: **Python**.
- **Python Packages**- NumPy, Pandas, Sci-py, Scikit-learn, Seaborn, Matplotlib, Flask.
- **Deep Learning**: Neural Networks, ANN, CNN, RNN, Transfer Learning, Back Propagation, Activation & loss functions, optimisers, TensorFlow, Keras.
- **Machine Learning**: Classification, Regression & Clustering, Linear Regression, Ridge & Lasso Regression, Logistic Regression, Naïve Bayes Classifier, k Nearest Neighbor’s Classifier, Support Vector Machine, Decision Tree, Random Forest, Gradient Descent, Ada-Boost, Gradient Boosting, XG Boost, K-means Clustering.
- **Natural Language Processing (NLP)**: NLTK, TF-IDF, Word2Vec, Bag of Words Sentiment Analysis, Pre-processing, State-of-Art Models (Bert)
- **Gen AI**: Fine-tuned pre-trained models like GPT-3 and BERT, Lang Chain and Hugging Face libraries, LoRA, Distilled BERT, Transfer Learning.
- **Deployment**
- **Docker**
- **Version Control Tool: GitHub**
- **Databases**: MySQL
- **Flask API**
- **Statistics**
- **Project Management Tool: JIRA**
- **Cloud: AWS**
- Hyperparameter Tuning, Statistical Analysis, EDA, Data Evaluation, Feature Engineering, Cross Validation, Ensembling Techniques.
- **Visualization: Seaborn, Matplotlib, Power BI.**
- **AWS**: Elastic Compute Cloud, Sagemaker, Notebook instance, AWS container, Simple Storage Services S3, Deployment, Multi cloud environment.
- **Computer Vision**: OpenCV, Pre-Trained Model, Image Segmentation/Annotation, State-of-Art (YOLO, ResNet V2).
- **Explainable AI**: SHAP, LIME, PDP

## Responsibilities

- Collaborating with stakeholders across different organizations and geographies autonomously to set up and lead complex projects.
- Delivering data-driven insights & outcomes clearly and communicating effectively with people of varying levels of data literacy and technical knowledge, up to executive levels.
- Analyzing and employing data structures, data modelling, and software architecture, Python packages such as: Numpy, Pandas, scikit\_learn, Seaborn and Matplotlib.
- Analyzing the data pertaining to various domains, build best fit models based on data and provide appropriate insights to business.
- Applying various visualization techniques for a better understanding of the data.
- Approaching a data science problem constructively and finding effective and relevant solutions.
- Selecting features, building and optimizing classifiers using machine learning techniques.
- Using predictive modelling to increase and optimize customer experiences, revenue generation, and other business outcomes.

## List of Projects

### 1) CyberSentinel: A Next-Gen Cyber Attack Detection Model

**Domain:** Cyber Security

**Duration :** SEPT 2021 to OCT 2022

**Description:**

We defined CADM project objectives by analyzing stakeholder needs, acquired and analyzed extensive cyber-attack data, and achieved high detection accuracy through machine learning models. We seamlessly integrated CADM into our security infrastructure for continuous monitoring. Our configuration enabled rapid incident response with alert generation, fostering collaboration and delivering actionable insights for decision-making and compliance reporting.

**Skill Involved:** Python, Machine Learning, FLASK API, AWS, Cyber Security.

### 2) AutoPlateVision: Revolutionizing License Plate Detection and Vehicle Monitoring

**Domain:** Computer Vision

**Duration :** SEPT 2020 to AUG 2021

**Description:**

Our project focused on stakeholder requirement analysis, data gathering, and annotation for 40,000+ images, followed by data engineering. We implemented OCR for number plate extraction and built a YOLOv5 model achieving an 94% accuracy rate. We conducted unit testing on custom datasets and generated BI reports. Our primary objective was to develop a cutting-edge system for vehicle type detection, number plate extraction, and secure database storage, enhancing image processing capabilities.

**Skill Involved:** Python, OpenCV, Object Detection, Deep Learning, ResNetv2, YOLOv5(State-of-Art).

### 3) POC - Client Credit Risk Profiling

**Domain:** Banking & Finance

**Duration :** OCT 2022 to JAN 2023

**Description:**

Our project's core objective is to predict credit card defaults and target low-risk customers for credit offers. Responsibilities encompassed defining project objectives, data collection, feature engineering, model development, and real-time deployment. Collaboration with cross-functional teams provided valuable data insights, while documentation and compliance reporting were diligently maintained. The project played a pivotal role in aiding decision-making processes based on model outputs.

**Skill Involved:** Python, Machine Learning, Database, Data Visualization.

### 4) Intelligent Bot: RASA-Powered Conversational Banking

**Domain:** FinTech

**Duration :** FEB 2023 to JUN 2024

**Description:**

In this project, I spearheaded the creation and took a leadership role in developing NLP models using RASA for precise banking query handling. I managed data acquisition and preprocessing to ensure data quality and relevance for effective model training. Seamlessly integrating these NLP models into the banking system, I optimized performance and ensured compliance with industry standards, prioritizing security and user experience. My continuous efforts included the evaluation and fine-tuning of model performance to enhance accuracy and efficiency throughout the project.

**Skill Involved:** Python, NLP, Database, Data Visualization, Lang Chain, Hugging Face libraries.