Sneha Sarkar

Bangalore **|** +91 7975879142 **|** sneha391998@gmail.com **|** GitHub **|** LinkedIn **|** Portfolio

BE in Computer Science	GPA: 8.37/10.0	**PES University, India**	Aug 2020

Relevant Certifications - PG Diploma in Machine Learning & AI, Azure Fundamentals, Modern Application Development, Cloud Computing

Publications - Effectuating Supervised Machine Learning Techniques for Multiclass Classification of Problematic Internet and Mobile Usage

TECHNICAL SKILLS

Programming	Python, Java, Javascript, HTML, CSS, C, C++
Database	SQL, SSIS
Cloud Technology	AWS, Microsoft Azure DataBricks, Docker, Kubernetes, Hadoop, Kafka
Tools	Git, Flask, Spark, Tableau, Airflow, PowerBI, ReactJS, NodeJS, RASA, PowerApps, PowerAutomate, Jenkins, Tidal ETL
Packages	TensorFlow, Pandas, Spacy, Sci-kit learn, Keras, OpenCV, PySpark, TKinter, NLTK, Darts, Statsmodels
ML/AI	Neural Networks, Deep learning, Natural Language Processing, Time series forecasting, Recommendation systems, Boosting, Image + Video processing, Sentiment Analysis, MLOps

PROFESSIONAL EXPERIENCE

Adobe – Bangalore, India   Aug 2020 – Till Date
Software Development Engineer II
- Developed user-friendly utility to securely expose internal databases of over a million records across 30 tables to authenticated external teams for seamless data manipulation using **PowerApps** and **PowerAutomate.**
- Designed and implemented a dynamic, evolving chatbot using **Tkinter**, **NLTK** and **Keras,** now deployed using **RASA**. Peer-tested and presented at Adobe's annual **hackathon**, the project secured **first place**, delivering substantial time and cost savings to onboarding operations.
- Developed a cloud-based ETL data analytics pipeline on **Databricks**, using **Darts** (**NaiveDrift**, **Prophet**, **NBEATSModel**) and **StatsModels** (**ARIMA**) for customer churn prediction and cross-product recommendations. Employed **Airflow** for orchestration, dynamic model evolution for accuracy, and **PowerBI** for visual insights and key performance indicators. Earned the "**High-Five**" Award.
- Managed enterprise finance **SQL** databases in roles spanning development, data profiling and validation.

Unisys – Bangalore, India   Jan 2020 – Mar 2020
Cloud Intern
- Led **Python**-based utility development within Unisys' CloudForte team, deploying a **Docker**-integrated solution for seamless JSON-to-Excel/Word conversion.
- Constructed the "Unisys Cloud Architecture Navigator" database with prioritized recommendations for efficient cloud expenditure management, **AWS** well-architected framework adherence, and enhanced security.
- Acquired **Kubernetes** training to proficiently manage containerized applications.

Hasura – Bangalore, India   Dec 2017 – Feb 2018
Product Development Fellow
- Developed a multimedia-based voting application which was implemented company-wide using **Flask**, **ReactJS**, and **AWS**.
- Utilized the generated data to construct analytics using **Natural Language Processing (NLP)** and neural networks **(CNNs)** revealing trends in employee sentiments and decision-making processes in **Python**. Earned "**Distinguished Fellow**" Award.

PROJECTS AND PUBLICATIONS

Supervised Machine Learning Techniques for Classification of Problematic Internet and Mobile Usage   Paper
- Created a non-invasive questionnaire to collect an 8000-record dataset with 18 dimensions.
- Data cleansing, PCA, encoding, normalization then training, testing, modifying and deploying ML models such as **XGBoost, SVM, LSTM, LightGBM** for optimal accuracy.

Gesture_Recognition-using-a-Conv3D-and-CNN-RNN-based-Deep-Learning-Model   GitHub
- Analysis of videos using neural networks for the purpose of gesture recognition. Compared Transfer Learning (VGG16) + RNN (GRU), CNN + RNN and Conv3D models, achieving 88-93% accuracy.

Flappy Bird ft. Neuroevolution   GitHub
- Created a version of the popular game "Flappy Bird", featuring a gameplay where users competed alongside the computer.
- Built a neural network with neuroevolution, emphasizing reinforcement learning in **JavaScript** utilizing p5.js for graphics.

Credit Card Fraud Detection   GitHub
- Created a pipeline for fraud detection using **XGBOOST** model with **Random Oversampling** with **StratifiedKFold CV**, anc **Logistic Regression** with **L2 Regularisation** with **RepeatedKFold Cross Validation**.

LEADERSHIP AND VOLUNTEERING

- Volunteer - PES University IEEE Chapter, inGenius Hackathon, Sankalp NGO, Adobe Project Smile CSR, Adobe Run4Fun Marathon
- Leadership positions - TEDxPESU Logistics and Design (2016, 2017), Adobe Action Circles, Adobe Dance Network.