AKSHAY PARATE

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EDUCATION

Stevens Institute of Technology **August 2023 - December 2024**
Master's, Data Science *GPA: 3.66*
- Relevant coursework: Applied Machine Learning, Data Analysis using Statistical Methods, Optimization in Data Science, NLP.

IIIT Bangalore **December 2021 - August 2022**
Certification, Advanced Programme in Blockchain Technology *GPA: 3.6*
- Certificate link: *Link to certificate*

K.J. Somaiya College of Engineering **May 2018 - May 2021**
Bachelor's, Electronics and Telecommunication Engineering *GPA: 3*

SKILLS

- **Programming Languages/Frameworks:** Python, R, Java, JavaScript, SQL, AngularJs, Flask, NodeJs.
- **Machine Learning libraries:** Pandas, NumPy, Matplotlib, Seaborn, PyTorch, TensorFlow, Keras, NLTK, Hadoop.
- **Machine Learning Algorithms:** Linear Regression, Logistic Regression, Decision Trees, Random Forest, K-means clustering.
- **Statistical Analysis:** Hypothesis Testing, ANOVA, Regression Analysis, Time Series Analysis, Data Integration and Analytics.
- **Neural Network:** Recurrent Neural Network, LSTM, Attention, Transformer, Convolutional Neural Networks, LLM.
- **Data Processing / Visualization Tools:** SAS, Power BI, Tableau, Python, Excel.
- **Cloud Platforms / DevOps:** AWS, Alibaba, Git, Jenkins, Kubernetes, Postman, Snowflake.
- **Finance:** Financial Risk Management, Fixed Income, Bonds, Hedge Funds, Derivatives, Quant Trading.

CERTIFICATIONS

Introduction and Intermediate R for Finance, Data camp.
Java Full Stack Development Course, Coders Technology, Mumbai.

PROFESSIONAL EXPERIENCE

LTIMindtree **Riyadh Saudi Arabia**
Senior Consultant *June 2021 - August 2023*
- Implemented DevOps (CI/CD) automation to enhance the project's ability to deliver applications and services at high velocity.
- Utilized Python for data analysis on production server traffic, contributing to enhanced server responsiveness by 20%.
- Developed a machine learning algorithm for a decision system that dynamically scaled servers based on real-time loads.
- Led the development and implementation of a Python script for real-time server load monitoring, enabling dynamic scaling and optimizing resource utilization by 15%.
- Frequently delivered code by introducing automation into the stages of app development using Python.
- Implemented Linux and Ansible scripts for health checks of non-production servers.
- Automated analyses and authoring pipelines via SQL and python based ETL framework.
- Designed and developed reports in python to meet business needs.

K.J. Somaiya College of Engineering **Mumbai, Maharashtra, India**
Python IOT Intern *September 2019 - January 2020*
- Developed Python automation scripts for smart irrigation, leading to increased efficiency by 12% and reduced labor costs.

PROJECTS & OUTSIDE EXPERIENCE

Personal Assistant AI using Auto-Regressive Transformer **New Jersey, USA**
- Utilized and fine-tuned the BART pretrained model for specific applications, enhancing its performance for targeted tasks.
- Improved model accuracy by implementing retrieval-augmentation and factual corrections, ensuring the generation of reliable and up-to-date information. Optimized CUDA kernels to accelerate computational tasks on NVIDIA 4090 GPU, significantly enhancing performance and efficiency.
- Developed a feedback loop to learn from errors and applied model calibration techniques to minimize hallucinations, ensuring more accurate and trustworthy outputs.
- Constructed machine learning models including data collection, normalization, and standardization, data pipeline construction, model selection and hyperparameter tuning, working ml systems that can add new data into fine-tuned model.
- *Link to project*

RNN-Attention French to English Translation from scratch (LLM) **New Jersey, USA**
- Utilized LSTM networks to capture sequential dependencies in input sentences and generate corresponding representations.
- Implemented attention mechanisms to dynamically focus on relevant parts of the input sentence during the translation process, enhancing the model's ability to align source and target language semantics.
- Integrated transformer architecture to leverage parallel processing and capture long-range dependencies more effectively, resulting in improved translation accuracy and efficiency.
- *Link to project*