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*](https://www.credential.net/f433586f-65bd-427c-9802-3c9c1e1edbe3#gs.59lh64)

## 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, PySpark, Jupyter Lab, Pycharm.
  + **Machine Learning libraries:** Pandas, NumPy, Matplotlib, scikit-learn, PyTorch, TensorFlow, Keras, NLTK, Spark, Hadoop.
  + **Machine Learning:** Linear Regression, Logistic Regression, Decision Trees, SVM, Ensemble Trees, 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, Exploratory Data Analysis.
  + **Cloud Technologies / DevOps:** AWS, Alibaba, Git, Jenkins, Kubernetes, Postman, Snowflake.
  + **Finance:** Financial Risk Management, Fixed Income, Bonds, Hedge Funds, Derivatives.

# 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.
  + Research and develop novel statistical approaches and machine learning models for real-time server load monitoring, enabling dynamic scaling and optimizing resource utilization by 15%.
  + Perform full data modelling and algorithm development cycle: training, deploying, and maintaining services.
  + 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 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.
* Developed a feedback loop to learn from errors and applied model calibration techniques to minimize hallucinations, ensuring more accurate and trustworthy outputs.
* Successfully integrated the enhanced model with existing deep learning models, including financial sentiment analysis and trading strategies, to create a cohesive and robust AI system.
* [*Link to project*](https://github.com/akshayparate123/PortfolioGenius-Algorithmic-Trading-Empowered-by-NLP-for-Intelligent-Portfolio-Building)

## RNN-Attention French to English Translation from scratch (LLM) New Jersey, USA

* Utilized Recurrent Neural Networks architectures to capture sequential dependencies in input English sentences and generate corresponding hidden 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](https://github.com/akshayparate123/LSTM-Attention-Transformer-English-to-French-Translation)*