AKSHAY PARATE

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# EDUCATION

## Stevens Institute of Technology August 2023 - May 2025

*Master's, Data Science GPA: 3.55*

* Relevant coursework: Applied Machine Learning, Data Analysis using Statistical Methods, NLP, DL, Big Data Technologies.

## 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, MongoDB, Flask, PySpark.
  + **Machine Learning libraries:** Pandas, NumPy, Matplotlib, scikit-learn, PyTorch, TensorFlow, NLTK.
  + **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:** Power BI, Tableau, Python, Excel, Exploratory Data Analysis.
  + **Cloud Technologies / DevOps:** AWS, Git, Jenkins, Kubernetes, Postman, Spark, Hadoop.
  + **Finance:** Financial Risk Management, Fixed Income, Bonds, Hedge Funds, Derivatives.

# CERTIFICATIONS

* + Advanced Programme in Blockchain Technology, IIIT Bangalore.
  + 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*

* + Designed and executed a CI/CD pipeline that facilitated the automated testing of 100+ applications, this initiative reduced manual testing efforts by 20 hours weekly, allowing for faster feedback and deployment cycles.
  + Utilized Python for data analysis on production server traffic, contributing to enhanced server responsiveness by 20%.
  + Developed insights from data analysis which identified critical patterns necessary for effective load distribution among servers; findings directly addressed three major causes leading to service interruptions previously experienced.
  + Researched and developed novel statistical approaches and machine learning models for real-time server load monitoring, enabling dynamic scaling and optimizing resource utilization by 15%.
  + Implemented Linux and Ansible scripts for health checks of non-production servers.
  + Collaborated with cross-functional teams including Product, Engineering, Research, Design, Sales, and Marketing to turn business questions into data problems.

## 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 [*Link to project*](https://github.com/akshayparate123/PortfolioGenius-Algorithmic-Trading-Empowered-by-NLP-for-Intelligent-Portfolio-Building) New Jersey, USA

* Designed and developed a voice-controlled GPT-based generative AI from the ground up for applications including question answering, summarization of text and code, paraphrasing, and profile creation.
* Enhanced model accuracy by 40% through retrieval-augmented techniques using internet data mining and incorporated feedback learning for factual corrections, ensuring reliable and up-to-date information generation.
* Developed a screen reading algorithm using OCR to summarize on-screen content.
* Employed the model to paraphrase and generate tailored resumes and cover letters for job applications, with data sourced via Selenium from Google Jobs.

## AI-Trader: Real Time Automated Portfolio Building and Algorithmic Trading [*Link to project*](https://github.com/akshayparate123/PortfolioGenius-Algorithmic-Trading-Empowered-by-NLP-for-Intelligent-Portfolio-Building) New Jersey, USA

* Spearheaded the full development of an investment tracking platform covering cryptocurrencies, stock markets, and mutual funds.
* Developed and fine-tuned a BERT model with a classification layer for sentiment analysis of financial news sourced from the Google News API, achieving 90% accuracy.
* Developed and integrated real-time scalping and short-term algorithmic trading strategies into the platform, along with the Piotroski strategy model for stock analysis, resulting in a 120% increase in profits.