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.

IIIT Bangalore   **December 2021 - August 2022**
Certification, Advanced Programme in Blockchain Technology   *GPA: 3.6*

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, 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

- 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.
- Automated analysis and authoring pipelines via SQL and python based ETL framework.
- 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*   **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.
- Implemented advanced model calibration techniques which resulted in an impressive 30% decrease in error rates, leading to more precise outputs for real-time automated portfolio building within AI-Trader's trading strategies.
- 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.

AI-Trader: Real Time Automated Portfolio Building and Algorithmic Trading *Link to project*   **New Jersey, USA**
- Led the end-to-end development of an investment tracking platform, encompassing crypto, stock markets, and mutual funds.
- Implemented BERT pre-trained model with a classification layer to train on existing financial news for sentiment analysis, achieving 90% accuracy.
- Utilized Google News API to mine the latest financial data and generated daily reports in Power BI with calculated sentiment.
- Implemented the complex financial Piotroski strategy model for stock fundamentals financial analysis using balance sheets, income statements, and cash flow statements