Aman Nagarkar

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Education

Santa Clara University - Santa Clara, CA GPA: 3.52/4.00
Master of Science in Computer Science and Engineering Sep 2021 – Jun 2023
Relevant Courses: Distributed Systems, Deep Learning, Big Data, Reinforcement Learning, Pattern Recognition & Data Mining

Savitribai Phule Pune University - Pune, India GPA: 3.46/4.00
Bachelor of Engineering in Computer Science Aug 2015 – Jul 2019
Relevant Courses: Data Warehousing, Database Systems, Object oriented programming, Data Visualisation, Cloud Computing

Experience

Data Science Intern - NLP at KLA Jun 2022 – Sep 2022
Milpitas, CA
- Architected a recommendation engine using TensorFlow for optimizing internal search engines, leveraging company's knowledge-base with a prediction accuracy of 0.52 which improved click-through rate from 29% to 55%.
- Designed data pipelines in Kafka to process high-volume and high-frequency data eliminating 200 hours of manual data tagging.
- Transformed the system into a RESTful endpoint and visualized metrics; boosted user engagement by 40% and reduced time-to-sight by 25%.
- Containerized the system using Docker, reducing deployment time by 50% and improving system resource utilization by 30%.

Software Engineer at Vint Media Feb 2019 – Jul 2021
Pune, India
- Led a cross-functional team to implement data integration solutions using Amazon S3, Restful API, and Amazon SQS to enable seamless data exchange between different micro-services.
- Leveraged support vector machine model to analyze the correlation between churn rate and business growth, identifying key parameters impacting customer attrition, improving company growth by 1.2%.
- Optimized load times up to 35% by employing caching mechanisms through Redis to reduce redundant database calls.
- Upgraded codebase to Python3, improving code readability and maintainability, reducing security vulnerabilities by 60%.

Machine Learning Intern at Accurate Risk Managers Jun 2018 – Sep 2018
Pune, India
- Collaborated with data scientists to develop ML models for risk analysis using TensorFlow, achieving an F1 score of 0.82.
- Evaluated and fine-tuned model parameters, improving the accuracy from 0.53 to 0.81.
- Deployed the optimized models, resulting in refined risk mitigation and a 20% increase in fraud detection rate.

Data Analyst Intern at Vasu Infosec Jan 2018 – Mar 2018
Pune, India
- Conducted exploratory data analysis on sales data with Python, and SQL, to uncover key trends and patterns that contributed to a 7% increase in revenue.
- Implemented targeted campaigns on the identified target customers, leading to a 12% improvement in customer conversion rates.
- Utilized data-driven insights to optimize marketing strategies resulting in 15% decrease in customer acquisition costs.

Projects

News Summarizing Application | Python, TensorFlow, Keras, BERTopic, NLTK, Docker, Kubernetes Mar 2023 – Apr 2023
- Trained a BERT model on the news data to generate semantic representations of news articles with cosine similarity of 0.85.
- Built a recommendation engine that suggests articles based on user preferences and history using Tensorflow and Keras.
- Designed a Interface using React.js for users to tune preferences for suggested articles.

Financial Data Analysis and Prediction | Go, Python, Keras, TensorFlow Jan 2023 – Mar 2023
- Engineered a distributed pub-sub system to handle real-time financial data streams using Go.
- Built a robust LSTM model in Python for accurate time-series forecasting of stock prices, achieving an accuracy rate of 65%.
- Developed a user-friendly dashboard to visualize the predicted stock prices, providing insights for decision-making and strategies.

Bringing Old Photos Back to Life | Python, CycleGAN, Variational Auto-Encoder, Scikit-Learn Feb 2022 – Mar 2022
- Developed a deep learning approach for restoring severely degraded old photos, addressing the complexity of real photo degradation and the domain gap between synthetic and real images.
- Trained two variational autoencoders (VAEs) to transform old photos and clean photos into separate latent spaces, with translation between the latent spaces learned using synthetic paired data.
- Achieved an average restoration accuracy of 90%, measured by comparing the restored photos to ground truth clean photos.

Skills

Languages: Python, C++, Java, JavaScript
Databases: Relational - Postgres, MySQL; Non-Relational - Redis, MongoDB
Functional Skills: Statistical Modeling, Software Development Life Cycle (SDLC), ML Algorithms, Agile
Cloud Technologies: Google Cloud Platform (GCP) - GCE, GCS, BigQuery; Amazon Web Services (AWS) - EC2, S3, DynamoDB
Technologies and Frameworks: Git, Node.js, Hadoop, Docker, Kubernetes, Kafka, Spark, Airflow, TensorFlow, MLlib, CUDA
Machine Learning: Data Analysis, Feature Engineering, Model Evaluation and Validation, Model Deployment, Model Maintenance