SINA NAZEM

MACHINE LEARNING ENGINEER

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HIGHLIGHTS

- Results-driven and detail-oriented Software Engineer specializing in Machine Learning.
- Seeking a challenging position as a Software Engineer (ML Specialist) to leverage my skills and expertise in designing, developing, and deploying machine learning pipelines.
- Strong background in machine learning concepts, algorithms, and frameworks.
- Proficient in programming languages such as Python and C++.
- Extensive knowledge and hands-on experience in working with popular machine learning libraries and frameworks, including TensorFlow, PyTorch, and scikit-learn.
- Experienced in implementing MLOps practices to streamline the machine learning lifecycle, improve model deployment, monitoring, and scalability.

WORK EXPERIENCE

Junior Machine Learning Engineer

Project: Behavioral Customer Segmentation, Vanguard

KPMG

 Conducted ETL, data analysis on financial advisors' data, and using unsupervised models KMeans, DBSCAN Aug 2022- Jan2024

- Build statistical function for statistical, inferential, and hypotheses testing(z-test) to make meaningful predictions about population.
- Gained Familiarity with AWS Sagemaker, and S3, exploring cloud computing and production-level programming.
- Contributed to data-driven solutions and improved data quality.

Project: Insight and Market Trend Analysis, Innovation Project

- · Crawl financial insights
- Leverage a language model for market trends, outlooks, and capital market terms.
- Apply the model for tasks like topic ID, summarization, recommendations, text classification, and product trends.
- Web scraping, extract, data gathering and, analysis large number of stock market earning calls
 transcripts to build a model and automated system such as text summarization, questionanswering system, recommendation system, summarization of historic stock movement,
 chatbot.

Project: Generative AI Knowledge corpus

- Utilize generative AI synthesize articles from multiple sources and compile the viewpoints from into one cohesive source.
- Gather the relevant insights and articles from different financial firms.
- Use different methodologies such as topic identification with BERTopic, TF-IDF
- Synthesis with generative AI processing to compile all outlooks from varying sources pertaining to a particular topic.
- NLP analysis to prepare financial topic corpus and topic labeling for each article, summarize the
 articles of a particular topic.

Project: Loan Data Tape Reconciliation and Loan Risk Analysis, PIMCO Project

- Data analysis including data sourcing, preparation, profiling, business rules encoding, statistical analysis/descriptive, operationalize outlier detection and optimize algorithms.
- Anomaly Detection by build supervised such as rule-based binary/multi class and unsupervised ml models.
- Design a data pipeline and automated system using Alteryx for preparing data analysis report and created a dashboard with PowerBI

Data Engineer

- Utilized PostGIS for geographic data analysis within PostgreSQL databases.
- Proficient in web crawling tools (Selenium, Beautiful Soup, Scrapy) for data collection and storage

Jun 2022- Aug 2022

Kilid

• Strong expertise in data management and processing, ensuring accurate analysis.

SKILLS

- Proficient in Python, including Pandas, PySpark, Scipy, and scikit-learn.
- Solid understanding of machine learning algorithms: supervised (regression, classification), unsupervised (clustering, anomaly detection, recommendation system) etc
- Experience in employing natural language processing (NLP, fine tuning LLM model) techniques and libraries
- Strong knowledge of data preprocessing, feature engineering, dimensionality reduction, and model evaluation.
- Skilled in model evaluation such as cross-validation, hyperparameter tuning, model metrics.
- Familiarity with MLOps tools including Docker and MLflow.
- Knowledgeable in SQL (PostgreSQL) and NoSQL (MongoDB) databases.
- Expertise in statistical analysis, quantitative analytics, forecasting/predictive analytics
- Version control proficiency using Git and collaboration on platforms like GitHub and Bitbucket.
- Skilled in data visualization using libraries like Matplotlib, Seaborn, Plotly, Tableau, PowerBI
- Excellent problem-solving and analytical capabilities.
- Strong communication and teamwork abilities.

EDUCATION

B.Sc. of Computer Software Engineering

Azad University 2021-Present