Dylan Michael *AI/ML Scientist*

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(901) 352 1161

Skills

Programming Languages
Python, R, SQL, C++, JavaScript, TypeScript, C#, ASP.NET

Cloud Platforms
Google Cloud Platform (GCP),, IBM Watsonx, AWS (SageMaker), Azure (Machine Learning Studio), Google Cloud Platform (AI Platform)

Machine Learning & AI
Generative AI, LLM, RAG, NLP, Time Series Analysis

Frameworks & Tools
TensorFlow, PyTorch, Keras, OpenCV, Scikit-Learn, NumPy, Pandas, React, Next.js, Vue.js, Express, Nest.js

Data Visualization
Looker, Tableau, Power BI, Matplotlib, Seaborn, Plotly

Other
ETL/ELT, Data Pipeline Design, Data Preprocessing, Vector Embeddings, Portfolio Management, Linear algebra, calculus, probability, Statistics

Professional Experience

2023/01 – 2024/04

AI Engineer
TechNova Solutions
•Architected and built multiple data pipelines, end-to-end ETL and ELT processes for data ingestion and transformation in GCP.
•Coordinated tasks among the team and demonstrated a POC for migrating on-prem workloads to Google Cloud Platform using GCS, BigQuery, Cloud SQL, and Cloud DataProc.
•Created user-defined views for accessing data in Looker.
•Employed Python for data conversion tasks to transform and preprocess data for machine learning algorithms and Generative AI models.
•Developed a chatbot using generative AI techniques such as transformer models.
•Implemented LLM workflows that improved data processing efficiency, resulting in quicker insights and better decision-making.
•Used vector embeddings within a vector index in Pinecone to retrieve relevant context during queries.
•Implemented RAG model to address limitations by retrieving relevant information from external sources.
•Designed, developed, and deployed GAI solutions with enhanced performance and safety features, including caching techniques and guardrails.
•Performed rigorous testing to ensure chatbot functionality met expectations.

2021/04 – 2022/12

Principal Data Scientist
Insight Analytics
•Developed unsupervised models such as Support Vector Machine and Isolation Random Forest to detect outliers in financial data. •Applied techniques to balance highly imbalanced datasets, including oversampling minority classes and undersampling majority classes.
•Used PCA, Factor Analysis, and statistical approaches to preprocess inputs and remove redundant data.
•Employed models like Extra Trees and statistical methods to estimate feature importance and report significant features.
•Developed LSTM-based models for multivariate, multistep time series forecasting.
•Analyzed and classified text documents using BERT and BART.

•Created chatbots to answer questions using T5 and GPT models.
•Conducted sentiment analysis of speeches using BERT.
•Managed portfolio risks using traditional Value at Risk (VaR) calculations and Modern Portfolio Theory (MPT).
•Extracted and transformed big data, deploying products to clouds such as GCP with CI/CD approaches

2019/05 – 2021/02 **AI & Generative AI Application Developer**
CloudWave Innovations
•Collaborated with a multi-disciplinary team to develop MVPs and enterprise-scale solutions at startup speed.
•Worked with IBM Foundation Models to drive experiential client engagements. Leveraged Watsonx.ai platform to co-create AI solutions with clients, delivering business value through AI.

2017/07 – 2019/04 **Data Scientist**
CloudWave Innovations
•Utilized various models, including classifiers, predictors, recurrent neural networks, and NLP deep-learning models.
•Improved Synopsys TestMAX runtime by over 12% through productized ML models and pipelines.
•Led machine-learning and AI projects to improve Synopsys products using Python, PyTorch, C++, and SQL.

2016/11 – 2017/06 **Python Backend Developer**
NeoTech AI
- Developed and maintained scalable backend services and RESTful APIs using Django and Flask.
- Collaborated with front-end developers, product managers, and stakeholders to design and implement new features.
- Optimized database queries and improved API response times, reducing latency by 45 % using PostgreSQL and MongoDB.
- Created automated testing frameworks with pytest, achieving 35 % code coverage.
- Deployed applications on AWS using Docker and Kubernetes, improving deployment speed and reliability.
- Implemented CI/CD pipelines using Jenkins, reducing deployment time by 20% and minimizing downtime.

2014/10 – 2016/08 **Web Developer**
InnovateX Labs
•Developed and maintained web applications using React, Next.js, and Vue.js.
•Created a computer vision-based surveillance system using Python, OpenCV, TensorFlow, and Keras.
•Built an automatic front desk system to scan and read numbers/letters on cards.
•Developed AI-based websites, apps, and mobile apps, integrating AI models with full-stack solutions.
•Managed databases and data flow using SQL, NumPy, Scikit-Learn, and Pandas.

Education

2010/09 – 2014/08 **Bachelor's Degree in Mathmatics**
Clark College