

Zakery Clarke

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<https://zclarke.dev>

Work Experience

MyFitnessPal- Manager of Machine Learning & AI (Jan 2025 - Mar 2026)

- ❖ Defined and executed AI strategy for a 200M+ user platform, aligning product, engineering, and executive stakeholders.
- ❖ Built and led a team of 8+ ML Engineers, Data Scientists, and MLOps Engineers delivering production ML and LLM systems.
- ❖ Launched Meal Scan AI Image Recognition Model, increasing scan-to-log conversion by +26% and trial-to-paid conversion by +8.5%.
- ❖ Led ML search re-ranking initiative for a billion scale food database which increased search-to-log rate by +5% while achieving p95 latency <50ms at 5k+ RPS.
- ❖ Built and scaled the Data Science Ads team, leveraging food database audience segments to enhance advertising targeting which increased CTR by 3-9x per campaign.
- ❖ Led project to develop first nutrition ChatGPT App as part of the OpenAI health launch.
- ❖ Developed and deployed a scalable ML Feature Store, centralizing reusable features for training and real-time inference, increasing team velocity by 2-3x.
- ❖ Managed ML department budget, vendor contracts, AI compliance policies, and infrastructure investments to optimize ROI.

Thrive Global- Manager of Data Science (Sep 2023 - Dec 2024)

- ❖ Built and managed a Data Science team focused on deploying ML models as the core experience of a Behavior Change Platform with 500k+ users, including Fortune 500 clients founded by Arianna Huffington.
- ❖ Led development of deep neural network recommender systems for a B2B2C content platform (100k+ items), driving +20% user engagement through personalized ranking.
- ❖ Managed the development and integration of a Healthcare Large Language Model (LLM) co-founded by the OpenAI Startup Fund.

Health Rhythms- (Team Lead) Staff Machine Learning Engineer (Nov 2021 - Sep 2023)

- ❖ Developed predictive ML models to identify at-risk patients and enable early interventions for mental health conditions.
- ❖ Created real-time ETL pipelines to process terabytes of raw GPS and EHR data in a HIPPA compliant environment.

Dr Owl- Senior Machine Learning Engineer (Mar 2019 - Nov 2021)

- ❖ Led development of Advertisement platform and built ML Recommendation Engine on an EHR platform with over 1 million users.
- ❖ Designed an ID verification service that saved over \$500,000 in expenses by utilizing facial recognition and Machine Learning techniques.

E-Center- Machine Learning Engineer (Oct 2018 - Nov 2019)

- ❖ Analyzed E-Sports player performance through the use of Convolutional Neural Networks, Object Recognition and Machine Learning systems
- ❖ Created business plan and participated in start-up pitches to secure funding

E-TransControl- Full-Stack Software Developer (Dec 2016 - Aug 2018)

- ❖ Created online payment portal to facilitate customer transactions
 - ❖ Embedded Processor Development for transmission controllers in modified vehicles
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Education

Master's of Computer Science

University of New Mexico 2019-2021

- ❖ Focus in Machine Learning & AI
- ❖ Thesis Research in interpretable LLM systems

Bachelor's Computer Science

University of New Mexico 2016-2019

- ❖ Presidential Scholarship & Dean's List
 - ❖ Minor in Mathematics & Statistics
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Projects

Teapot AI LLM

https://teapotai.com/blogs/teapotllm_release

- ❖ Trained a fine-tuned, ~1B parameter hallucination-resistant LLM, which achieved over 8k monthly downloads on Hugging Face, optimized for reliable RAG-based tasks.
- ❖ Developed chat client that ran in a browser or Chrome extension enabling fast, scalable AI interactions without server infrastructure, preserving user privacy and security.

Thesis Project- Interpretable LLMs

<https://zclarke.dev/thesis.pdf>

- ❖ LLM thesis focused on learning intermediate representations for question answering
- ❖ Uses word vectors, fine-tuned text to text transformers, coreference resolution and other NLP techniques to generate inferred knowledge graphs from a passage of text

NYC AI Traffic Camera Analysis

https://github.com/zakerytclarke/nyc_ai_traffic_camera_analysis

- ❖ Performed large scale analysis of 1000 publicly available traffic cameras using object recognition to identify traffic patterns using parallelized inference
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Skills

Languages: Python, JavaScript, Node JS, Haskell, Java, C++, C, SQL, MongoDB, No-SQL, Object Oriented Programming, Functional Programming

Frameworks & Libraries: TensorFlow, PyTorch, Keras, Scikit-learn, Hugging Face, CatBoost, XGBoost, LightGBM, Pandas, NumPy, Matplotlib/Seaborn, React, LangChain

ML Techniques: Deep Learning, Natural Language Processing (NLP), Neural Networks, Fine-tuning Large Language Models (LLMs), Retrieval Augmented Generation (RAG), Embedding Models, Vector Databases, Data Visualization

Cloud & MLOps: Databricks, Snowflake, Delta Lake, Apache Airflow, Dagster, CI/CD, GitHub, AWS, GCP (Vertex AI), Azure

Software Development & Tools: Agile/Scrum, Linux, Git, CI/CD, Cursor, VS Code

Leadership & Soft Skills: Team Leadership, Strategic Planning, Cross-Functional Collaboration, Mentoring & Coaching, Communication, Problem Solving, Innovation