MICHAEL Z KINGSLEY

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EDUCATION

University of Southern California — Los Angeles, CA
Master of Science in Computer Science | CGPA 3.7 — May 2025
- Specialization in Artificial Intelligence

University of Rochester — Rochester, NY
Bachelor of Science in Data Science | CGPA 3.8 — May 2023
- Honors: Dean's Scholarship 8/8 Semesters

KEY PROJECTS

Semantic Search and RAG with Vector Databases and LLMs — November 2024
- Implemented vector-based similarity search using Weaviate, integrating a Dockerized vector database and text2vec transformer module to efficiently query vectorized JSON data for semantic search capabilities
- Utilized Hugging Face and Lightning AI to design and run a Retrieval-Augmented-Generation pipeline on GPU-accelerated cloud platforms, enabling natural language queries on customized datasets and PDFs

Automated Chess Commentary Generator — January 2024 - May 2024
- Applied innovative approach to chess commentary generation by fine-tuning Llama-3 with specially curated dataset
- Produced insightful, context-aware commentary through advanced prompt engineering with Llama-3 by utilizing FEN/UCI

Graph Recommender System — August 2023 – December 2023
- Developed a Graph Neural Network based recommendation system for Amazon data to better capture customer relationships
- Integrated word embeddings using the all-MiniLM-L6-v2 model from HuggingFace to generate more accurate node embeddings
- Compared models such as GraphSAGE, GAT, and GCN achieving an RMSE of 1.08, surpassing traditional KNN and SVD methods

Sentiment Analysis - Opioid Tweets — January 2023 - May 2023
- Designed and executed an end-to-end data pipeline, extracting and cleaning 3 million tweets using Python NLTK package
- Trained a BERT-Classification algorithm using Hugging Face library to classify context, achieving a Precision of 85%

Pose Estimation and Classification — September 2022 – November 2022
- Applied and trained ViT-Pose, a pose estimation algorithm to track and correct weight lifting form using Python
- Classified types of exercise with a 94% accuracy by deploying a deep CNN architecture with the Pytorch package in Python

PROFESSIONAL & LEADERSHIP EXPERIENCE

SDA TAP Lab — Remote, CA
AI/ML Engineer — January 2024 - May 2024
- Fine-tuned YOLOv9 on open-source satellite imagery to detect small objects with a 0.48 Intersection Over Union(IOU), a 20% improvement over previous models, enhancing resolution and accuracy of surveillance data
- Enhanced satellite imagery analysis by 40% by integrating advanced analytics and embedding space comparisons; coordinated cross-functional efforts to develop a real-time alert system for notifying U.S. Space Force of critical events

Funko Dojo (Mojo Labs LLC.) — Remote, NY
Backend Software Engineer Intern — June 2022-August 2022
- Leveraged Postman proxy to reverse engineer an eCommerce API, tripling the efficiency of product stock monitoring
- Collaborated with engineering teams to implement and troubleshoot solutions, ensuring high performance, security, scalability
- Implemented product monitoring modules with Python Requests and Slack API to increase product coverage by 30%.

University of Southern California, Hospitality Services — Los Angeles, CA
Student Supervisor | Starbucks — August 2024-Current
- Delivered targeted training and mentorship on closing protocols, significantly improving team performance and creating a highly cooperative and productive work environment.
- Oversaw closing shifts, confirmed efficient completion of end-of-day tasks, including inventory audits and secure store locking procedures. Streamlined shift tasks to maximize workflow, prompt cleaning, restocking, and readiness for next day's operations

University of Rochester, Data Science Department — Rochester, NY
Teaching Assistant | Computational Statistics — August 2022-December 2022
- Led weekly workshops for 16 students to review class content and clarified key concepts taught in class
- Graded exams and assignments and hosted weekly office hours to assist 16+ students solve homework sets

SKILLS

- Programming Languages: Python, R, Java, SQL, Cypher, TypeScript
- Libraries/Packages: scikit-learn, Pandas, PySpark, NumPy, PyTorch, PyG, Langchain, statsmodels, dplyr, caret, huggingface
- Skilled in: Github, Gitlab, Confluence, Jira, Matlab, Tableau, AWS, Redshift, Lambda, GCP, Hadoop, Docker, Databricks
- Languages: English, French, Mandarin Chinese