Zakery Clarke

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Work Experience

Thrive Global- (Team Lead) Staff Machine Learning Engineer (Sep 2023 - Current)
- ❖ Built Data Science team focused on deploying models as the core experience of a Behavior Change Platform with 500k+ users and Fortune 500 clients
- ❖ Led development of advanced LLM agent and ML models that improved user engagement using prescriptive models and RAG techniques

Health Rhythms- (Team Lead) Machine Learning Engineer (Nov 2021 - Sep 2023)
- ❖ Trained models to predict and prevent mental illness for at risk patient populations of
- ❖ Created real-time ETL pipelines to process raw GPS and EHR data in a HIPPA compliant environment
- ❖ Led process of productionizing data sources and model development lifecycles

Dr Owl- Machine Learning Scientist (Mar 2019 - Nov 2021)
- ❖ Led development of Advertisement platform and built Bayesian Recommendation Engine
- ❖ Designed ID verification service that saved over $500,000 in expenses by utilizing facial recognition and Machine Learning techniques
- ❖ Analyzed statistics on a platform with over 1 million users

E-Center- Co-Founder & 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

Projects

Natural Language Processing- Thesis Project   https://zclarke.dev/thesis.pdf
- ❖ NLP thesis focused on learning intermediate representations for question answering
- ❖ Uses word vectors, text to text transformers, coreference resolution and other NLP techniques to generate inferred knowledge graphs from a passage of text

NM Apartment Advisors Rent Predictor   https://zclarke.dev/Apartment_Rent_Analysis
- ❖ Created a neural network model with less than 5% error rate to predict rent prices
- ❖ Used ensemble learning techniques to account for sparse sample data

Solomon.ai   https://github.com/zakerytclarke/solomon
  - ❖ Created tool to automatically clean and visualize data, and build machine learning models
  - ❖ Publicly available under open source license

Computational Paper   https://zclarke.dev/computationalPaper/
  - ❖ Drawing app that utilizes machine learning handwriting recognition
  - ❖ Features mathematical equation solving and automatic graphing

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Education

Master's of Computer Science   **Bachelor's Computer Science**
University of New Mexico   2019-2021   University of New Mexico   2016-2019
  - ❖ Focus in Machine Learning & AI   - ❖ Presidential Scholarship & Dean's List
  - ❖ Thesis Research in NLP systems   - ❖ Minor in Mathematics & Statistics

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Skills

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

Libraries: Pandas, Numpy, Scikit-learn, Keras, Tensorflow, Hugging Face, Spacy NLP, Catboost

Soft Skills: Communication, Self-Starter, Leadership, Teamwork, Problem Solving, Detail Oriented, Quick Learner, Interested in new technologies

Techniques: Machine Learning, Artificial Intelligence, Neural Networks, Natural Language Processing (NLP), Large Language Models (LLM), LangChain, Image Recognition, Clustering, Data Science, Data Visualization, Continuous Integration/Continuous Deployment (CICD), HIPPA Certification

Technologies: Github, Databricks, Delta Lake, AWS, S3, AWS Cognito, Cloudfront, Elastic Beanstalk, Linux, Unity, Express, React, React - Native, Agile/Scrum, Flutter, Git,