

Gerald Akorli

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Education

The College of Idaho

Bachelor of Science in Computer Science

Expected Graduation May 2025

Skills

Languages: Python, JavaScript, TypeScript, Git, MySQL, Dart, Java, C++, Bash/Shell, Scala, C, Go, R, PHP, Ruby, Clojure,

Technologies: AWS, GCP, Langchain, Linux, React JS, Node.js, TensorFlow, Keras, Scikit-learn, Pygame, Tailwind CSS, Kubernetes, Datadog

Experience

Software Engineering Resident

New York, NY

Headstarter

Oct 2024 - Present

- Built 14+ machine learning, AI-engineering, and full-stack projects in dynamic, collaborative software team environments
- Developed 5+ neural networks in Python and 11 applications in TypeScript, deployed on AWS and Vercel with seamless transitions between development and production environments
- Implemented LLM-chaining, hyperparameter tuning, and fine-tuning for 10+ large language models, optimizing for both latency and accuracy
- Coached by engineers from Google Machine Learning, Google Kubernetes, Two Sigma, Tesla, Figma, and Citadel to enhance technical expertise and problem-solving skills

Machine Learning Engineering Intern

Louisville, KY

Yum! Brands

Jun 2024 - Jul 2024

- Reduced customer service response times by **30%** by leveraging **AutoGen** to design and implement a specialized help desk chatbot
- Led the API upgrades, increasing data handling efficiency by **25%** and enhancing integration with external services
- Streamlined data preparation for ML models using **internal ETL tools**, improving data validity resulting in a **15%** reduction in security incidents
- Worked in an **Agile team** environment using **Git** for version control to manage collaborative contributions effectively
- Used **Datadog** to track error with APIs with recommended ordering system and fixed them

Software Engineering Intern

Caldwell, ID

Caldwell Housing Authority

Jun 2023 - Jul 2023

- Engineered a donation feature using **Stripe**, enabling comprehensive transaction monitoring to aid the organization's funding efforts
- Improved user experiences and operational efficiency using Gravity forms to streamline application processes and increased count by **30%**
- Enhanced website security for platforms with substantial daily user interactions by regular plugin updates preventing cyber threats and ensure scalability

Projects

Brain Tumor Classification Using Deep Learning - 50 hours

- Engineered a CNN model with TensorFlow and Keras to classify brain MRI images into tumor and non-tumor categories with 90% accuracy
- Streamlined data preprocessing with OpenCV and TensorFlow for image normalization and augmentation, improving robustness and reducing overfitting
- Deployed and evaluated the model using performance metrics such as accuracy, precision, and recall, achieving an optimized pipeline for medical image analysis
- Built a Streamlit-based web application to provide an intuitive interface for users to upload MRI images and receive real-time classification results

Customer Churn Prediction – Machine Learning Model for Retention Analysis - 50 hours

- Designed a machine learning pipeline to predict customer churn using Python and Scikit-learn, leveraging data preprocessing, feature engineering, and model selection techniques
- Achieved a predictive accuracy of 80% by training and evaluating models including Logistic Regression, Random Forests, and Gradient Boosting
- Visualized insights on churn drivers with Matplotlib and Seaborn, enabling actionable recommendations to improve customer retention strategies

Natural Language Processing with NLTK - 50 hours

- Maximized data quality by preprocessing text data, removing HTML tags to convert text to lowercase and eliminate punctuation and stop words.
- Improved language processing by implementing a language model using NLTK's MLE module, including tokenization and bigram generation
- Enabled automated text creation by building a function to generate random sentences based on a provided template, while leveraging the language model

Pentagram – AI Image Generation Tool - 50 hours

- Developed a backend service using FastAPI and the Modal framework for efficient AI-driven image generation, optimizing performance with GPU acceleration
- Integrated Stability AI's stable diffusion model using the Diffusers library for advanced and scalable image generation
- Configured a Next.js frontend to interface with the AI backend, enabling users to input prompts and receive custom-generated images seamlessly

Activities

Dev Friend (Devpost Hackathon Project)

- Created a VS Code extension aimed at boosting developer productivity through features like time tracking, and regular break reminders
- Utilized JavaScript and the VS Code API for development, resulting in a tool that promotes healthier coding practices

Certifications: Machine Learning with Python – By IBM on Coursera, Intro to Deep Learning & Neural Networks with Keras
Intro to Computer Vision and Image Processing