

Cory Morgan

AWS Certified Solutions Architect – Associate

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GitHub | LinkedIn

Summary

Certified AWS Solutions Architect with a fullstack background and AI/ML expertise. Experienced in deploying scalable cloud infrastructures, building intelligent applications, and leading cross-functional teams in fast-paced environments.

Technical Skills

Languages: Python, JavaScript, TypeScript, SQL

Web/Tools: Node.js, React, Express, PostgreSQL, Docker, Git, GitHub

AI/ML: AWS SageMaker, Gemma LLM, TensorFlow, PyTorch, Hugging Face, YOLO, OpenCV

Data Science: NumPy, PIL, Pandas, Matplotlib, Seaborn, Data Pipelines, Data Modeling, ETL

Cloud: Terraform, AWS (Lambda, S3, DynamoDB, API Gateway, Route 53, CloudFront, IAM, CloudWatch)

Certifications

- AWS Certified Solutions Architect – Associate, AWS, May 2025
- AI Engineering Fellowship, KaggleX, Dec 2024
- Semantic Segmentation with Amazon SageMaker, Coursera, Feb 2025
- Computer Vision & Deep Learning with PyTorch, Udemy, Jan 2025

Projects

Cloud VPN with Ad-Blocking

- Deployed WireGuard VPN on AWS EC2 with Terraform managing 10 infrastructure resources.
- Implemented SSM Session Manager for secure instance management without SSH key exposure.
- Optimized for cost efficiency, operating fully within AWS free-tier limits at near zero cost.

AWS Cloud Resume Challenge

- Deployed a personal resume site using AWS S3, CloudFront, Route 53, Lambda, and DynamoDB.
- Provisioned infrastructure with Terraform and added a serverless visitor counter.
- Integrated GitHub Actions CI/CD and CloudWatch alarms with Slack notifications.

AI-Powered Semantic FAQ Search Platform

- Built a secure, cost-efficient AWS stack with Terraform: provisioned a VPC, EC2 instance, S3 bucket and IAM roles to host Weaviate and Streamlit.
- Developed hybrid BM25 + vector search with Weaviate and OpenAI embeddings.
- Deployed EC2-hosted semantic search frontend with Docker and ECR pipelines.

Video Instance Segmentation Model

- Engineered a YOLOv8-based video instance segmentation model on TPU for real-time vehicle detection and tracking, exporting to ONNX for optimized GPU inference.
- Boosted accuracy with advanced OpenCV augmentations and a custom preprocessing, annotation, and fine-tuning pipeline.
- Delivered scalable, low-latency cloud- and container-ready deployment for autonomous systems and surveillance analytics.

Monarch: AI-Powered Personal Finance App

- Developed backend for AI-driven finance app using Node, Express, and PostgreSQL, optimizing data flow and storage.
- Integrated OpenAI chatbot for personalized investment advice, boosting user engagement.
- Delivered features in Agile sprints with CI/CD, ensuring continuous improvements and code quality.

Experience

AI Engineering Fellow – KaggleX

Aug 2024 – Dec 2024 | Remote

- Developed and fine-tuned an AI medical chatbot using Gemma LLM and TensorFlow.
- Applied prompt engineering and optimized model pipelines for accuracy and performance.

Lead Care Coordinator – Spear Physical Therapy

Jun 2023 – Present | Brooklyn, NY

- Led patient coordination and streamlined front desk workflows in a busy healthcare clinic.
- Enhanced service delivery and operational efficiency across multiple departments.

Software Engineering Student – Thinkful, Chegg Skills Inc.

Apr 2023 – Oct 2023 | Remote

- Completed intensive fullstack development curriculum.
- Built mobile-first web apps with mentorship and agile feedback loops.

Education

Rochester Institute of Technology – B.S. in Business Management & Marketing