Cesar Tortolero

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Summary

Machine Learning Engineer with 2+ years building and shipping ML and LLM systems on AWS and Databricks: AI agents and MCP integrations, LLM tracing and evaluation, serverless APIs, and MLOps. Customer-facing: taught ~350 developers to ship agents and fixed their production integrations when they broke.

Work Experience

ADP — ML Engineer (Aug 2026 – Present) · Associate ML Engineer (Jul 2024 – Jul 2026) Roseland, NJ

AI agent platform and applied AI (2026)

- Co-delivered 18+ hands-on workshops to ~350 developers across payroll, HR, tax and analytics, teaching them to build, test and deploy AI agents (Strands Agents, MCP, AWS Bedrock AgentCore); the platform now runs 250+ agents. Wrote the onboarding guide and 12 demo videos.
- Debugged agent integrations for internal teams (MCP IAM request signing, OAuth credentials, missing deployment secrets, network rules). Brought an internal HR agent and a regional integration back into service.
- Built LLM tracing and evaluation with Arize AX and OpenTelemetry/OpenInference (prompts, latency, token usage). Evaluated a skill-extraction model on 2,400+ records with precision, recall, F1 and slice analysis.
- Hardened the developer-portal API behind the agent catalog (NestJS, TypeScript, DynamoDB): transactional versioning, optimistic concurrency, entitlement fixes and audit identity.

Cloud infrastructure and release engineering (2026)

- Built a serverless cross-account network-testing API (FastAPI, AWS Lambda, private API Gateway, Terraform) that lets teams test connectivity themselves, probing across AWS accounts in parallel with bounded retries.
- Built a network-diagnostics app (Python/Flask, boto3, SSM Run Command) that verifies firewall rules across a multi-account AWS environment, **cutting each check from about a day of developer time to minutes**.
- Ran 6+ weekly multi-region releases of an enterprise AI assistant platform with Jenkins, Terraform and Artifactory (e.g. every US and EU job finished green in one release); wrote the runbook.

MLOps and GenAI (2024 – 2025)

- Supported model owners migrating to Databricks Unity Catalog and MLflow (signatures, aliases, Spark UDF batch inference), and maintained migration tracking across a model inventory in the hundreds.
- Root-caused SageMaker endpoint deployment failures in Jenkins pipelines; wrote model serving and batch inference guides.
- Built GenAI playground features (Streamlit, LangChain): multi-model chat and document Q&A evaluation.

Kennesaw State University — Lead Researcher, Thoughts-to-Text BCI Sep 2021 – May 2023

- Researched decoding attempted handwriting from non-invasive EEG, one character at a time (autoencoder + t-SNE); two KSU symposium presentations (2022). Presented at NCUR; $2,000 Research Excellence stipend. Mentored 50+ undergraduate researchers as Research Peer Mentor (2022–2023).

Projects

- **LLM companionship chatbot with sentiment analysis**: led the four-person capstone team and designed the backend LLM (DistilGPT-2 server, eight-emotion sentiment module). First Place, KSU C-Day, Spring 2024.
- **Multi-agent developer workflow**: specialist coding subagents, read-only MCP servers for CI and source-control context, and a searchable knowledge base compiled automatically from work sessions.

Education

Georgia Institute of Technology — M.S. CS, Machine Learning (online); taking ML for Trading Exp. Dec 2028

Kennesaw State University — B.S. Computer Science (Artificial Intelligence), *Magna Cum Laude* 2021 – 2024

Skills

Languages	Python, TypeScript, JavaScript, SQL, Java, Bash
LLMs & Agents	Strands Agents, MCP, LangChain, RAG, prompt design, Arize AX, OpenTelemetry/OpenInference, LLM evaluation
ML & MLOps	scikit-learn, XGBoost, TensorFlow, MLflow, Databricks Unity Catalog, Spark, Amazon SageMaker
Cloud & Infra	AWS (Lambda, API Gateway, EC2, SSM, IAM, S3, DynamoDB, Bedrock AgentCore), Terraform, Docker, Jenkins CI/CD
Backend/Testing	FastAPI, Flask, NestJS, pytest, Jest