Ariel A. Arévalo Alvarado

AI/ML Engineering Lead

"Lead Founding AI/ML Engineer at CRSS, where I built 5+ client prototypes, a 28-repository engineering organization from zero, and a production AI platform product concept later validated by a $9M OpenAI investment in a similar startup."

Contact

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Work History

CRSS, Remote
Founding AI/ML Engineer   *Jun 2025 – Present*

- Designed an apprentice agent workflow platform (AutoActivity) from zero to production as the lead founding engineer, delivering a 4-repository system with 1,162 commits spanning backend (FastAPI), frontend (Playwright browser event trace capture), and Azure ML data pipelines.
- Architected and built across 5+ client-specific AI prototypes—chatbots, document classifiers, and data analysis agents—using LangChain, MCP, Azure AI Foundry, and Slack integrations.
- Established an AI engineering organization spanning 28 repositories and 1,860 commits, including production platforms, client prototypes, documentation hubs, and team training resources.

Skills: Python, FastAPI, Azure ML, LangChain, Docker, MCP, Alembic, Azure AI Foundry, System Architecture

Colibri Group, Remote
Senior AI Engineer   *Jul 2025 – Present*

- Designed a zero-deployment agent configuration architecture ("Instant Agents") that reduced per-agent deployment effort by 45% through a control plane/data plane separation with immutable versioning and automated component discovery. This allowed us to scale from 6 to 50+ agents at $8.52/agent/month with under 1% infrastructure overhead
- Built the Rubi enterprise AI platform from scratch as the primary developer (573 commits), implementing agent runtime orchestration, JWT security, persistent memory, and a self-serve agent builder on AWS Bedrock AgentCore.

Skills: Python, AWS Bedrock AgentCore, MCP, Abacus AI, System Architecture

Datasite, Heredia
AI/ML Engineer   *Apr 2024 – Jun 2025*

- Designed the first end-to-end MLOps pipeline at Datasite, replacing ad-hoc Jupyter notebook experimentation with reproducible Azure ML pipeline steps incorporating data versioning and experiment tracking.
- Architected a medallion data architecture (Bronze/Silver/Gold) for production ML workflows, establishing standardized ingestion, validation, and feature engineering stages on Airflow and Azure ML.

Skills: Python, Pandas, Azure ML, Apache Airflow, MLOps, Keras, PyTorch, NLP, Deep Learning, Jenkins

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TransUnion, Heredia
Data Engineer *Dec 2022 – Apr 2024*

- Led development of the initial ETL pipeline synthesizing IPv6 geolocation data for the industry-leading IP GeoPoint product, designing Spark SQL and Spark ML workflows on Google Cloud Dataproc.
- Maintained an ETL pipeline synthesizing IP reputation data to determine whether users were malicious and/or bots, making use of a Decision Tree model running in J2EE.

Skills: Scala, Java, Python, Apache Spark, Spring Framework, GCP Dataproc

Snap Finance, Alajuela
Software Developer *Dec 2021 – Dec 2022*

- Developed originations back-end services across monolith (J2EE), microservices (Spring), and serverless (AWS Lambda) architectures for consumer financing applications.

Skills: Java, JavaScript, Python, Spring Framework, J2EE, AWS Lambda

PROJECTS

[ClimateFact](#) – AI-powered climate statement fact-checker (school project) *Spring 2025*

- Built an AI fact-checking system using LangGraph and Azure OpenAI to detect contradictions in climate statements against the IPCC AR6 report, leveraging DeBERTa natural language inference models for semantic validation.

Skills: Python, LangGraph, Azure OpenAI, NLP, NLI, DeBERTa

EDUCATION

BSc. University of Costa Rica, Computer Science *Dec 2026 (expected)*

BSc. University of Costa Rica, Mechanical Engineering *On hold since 2020*

PROFESSIONAL DEVELOPMENT

BlueDot Impact, AGI Strategy *Feb 2026 – Mar 2026*

HONORS & AWARDS

Golden Wrench *Sep 2022*
Snap Finance, Alajuela

"To any Snap Employee that goes above and beyond, exemplifying Snap values."

LANGUAGES

English: Native   **Spanish**: Native

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