

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

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

AutoRigger – Evolutionary framework for declarative agent harnesses Spring 2026

- Building a harness to evolve a framework for declarative agent harness construction (*Rigger*) through open ended harness search space exploration, leveraging Harbor for benchmark convergence rate signals. Inspired by Live-SWE-agent and Group-Evolving Agents.

Skills: Python, TypeScript, Claude Agent SDK, Self-Modifying AI

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

AAAI Workshop, Towards Execution-Grounded Automated AI Research Feb 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