# Ariel A. Arévalo Alvarado

*AI/ML Engineering Lead*

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

*"Designed the 'Instant Agents' zero-deployment architecture at Colibri Group, where I built the Rubi enterprise AI platform from scratch on AWS Bedrock AgentCore—scaling to 50+ agents at $8.52/agent/month."*

## Contact

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## Work History

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

- Designed a construction AI 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 automation), 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.
- Headed a strategic product pivot (TracePipe) after a startup secured $9M in OpenAI backing for a similar product, extracting browser trace capture and classification capabilities into a standalone microservices platform.
- 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% (78 → 43 story points), through a control plane/data plane separation with immutable versioning and automated component discovery.
- 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.
- Designed an architecture scaling from 6 to 50+ agents at $8.52/agent/month with under 1% infrastructure overhead, leveraging provider-agnostic runtime abstraction and automated discovery.

*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 Pipelines, 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*

## EDUCATION

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

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

## LANGUAGES

**English**: Native  **Spanish**: Native

## HONORS & AWARDS

**Golden Wrench** *Sep 2022*
**Snap Finance**, Alajuela

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