

# ERNESTO CANDANEDO CRUZ

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*Lead Software Engineer (AI/ML) • Multi-Cloud Architect • Information Systems Modernization*

Mission-driven **Lead Software Engineer / AI Solutions Architect** with 13+ years across software engineering, AI/ML, and multi-cloud (AWS GovCloud, Azure GovCloud) in DoD environments. Proven record **leading AI pilots from concept to production**, integrating **Bedrock/SageMaker/TensorFlow** into CI/CD, and supporting **Oracle ERP auditability** with anomaly detection and reconciliation automation. Known for **DevSecOps**, **Scaled Agile** execution, and delivering **secure, compliant** systems (NIST 800-53, DISA STIG, Zero Trust) that improve transparency, speed, and audit readiness

## CORE COMPETENCIES

- AI & ML (TensorFlow, Pytorch)
- ERP Systems (Oracle ERP Financials)
- Python, JavaScript; React/Next.js
- GovCloud Architecture (AWS, Azure)
- Infrastructure-as-Code
- API Development & Data Management
- Security & Compliance
- Agile SAFe
- Technical Leadership

## TECHNICAL PROFICIENCIES

**AI/ML Services:** AWS Bedrock, SageMaker, TensorFlow, PyTorch, NLP, Computer Vision, Hugging Face, LangChain, CrewAI  
**Cloud & Platforms:** AWS Azure GovCloud, AWS AI/ML, CloudTrail, CloudWatch, Config, EKS, ECS, CloudFront, Docker, GitLab  
**Infrastructure-as-Code:** Terraform, CloudFormation, Bash, PowerShell, JSON, YAML  
**Programming & Frameworks:** Python, Java, JavaScript, TypeScript, React/Next.js, React Native, Flask, Node.js  
**Databases:** Oracle, PostgreSQL, Aurora, MongoDB, DynamoDB, Redis, Elasticsearch, MS SQL  
**Security & Compliance:** Security Hub (CIS), GuardDuty, WAF, Vault, EventBridge, IAM/SSO, FedRAMP, Zero Trust  
**Monitoring & Analytics:** CloudWatch Dashboards, SNS Alerts, Prometheus, Kibana, Grafana

## PROFESSIONAL EXPERIENCE

CACI INTERNATIONAL INC, BONAIRE, GA, AUGUST 2024 TO PRESENT

### TRANSFORMATION MULTI-CLOUD ARCHITECT / AI SOLUTIONS LEAD

- **Team Lead – CACI AI Imagineers Ai<sup>2</sup> Technology Stack:** Directed development of an agentic GenAI assessment tool to assess, design, and deploy tailored AI/ML solutions at scale. Integrated AWS Bedrock Claude v2 to generate intelligent recommendations and produce executive-ready PDF reports and CrewAI-compatible YAML blueprints. Delivered a secure production framework with Next.js 14, TypeScript, Tailwind, React Hook Form, and Zod, supporting cybersecurity and medical use cases. Collaborated with cross-functional engineers to move pilots toward production.
- **ERP Auditability & AI Integration:** Embedded AI-driven anomaly detection and reconciliation automation into ERP workflows to strengthen financial audit readiness and accelerate reporting accuracy.
- **AI/ML Pilot Development:** Designed proof-of-concept modules for forecasting and reporting using AWS Bedrock and MLOps pipelines, demonstrating scalability and alignment with financial system modernization.
- **US Coast Guard Cloud Transformation:** Modernized Azure GovCloud with a Terraform (HCL) Infrastructure-as-Code framework, reducing deployment timelines from months to ~90 minutes while ensuring compliance and scalability across East/West regions.
- **DevOps & CI/CD Leadership:** Designed a multi-subscription Azure pipeline integrating VMs, Blob Storage, Key Vault, NSGs, VNets, and firewalls for secure, production-grade deployments. Integrated GitLab CI/CD workflows for version control and automated testing.
- **Mentorship & SME Engagement:** Trained DevOps engineers on Terraform fundamentals and IaC best practices; authored documentation and architecture diagrams for leadership; served as AWS GovCloud SME and liaison to USCG stakeholders

DHARA CONSULTING GROUP, ROBINS AFB, GA, NOVEMBER 2023 TO PRESENT

#### PRINCIPAL CLOUD ARCHITECT

- **Cloud Automation & Cost Savings:** Deployed an IT Automation Infrastructure-as-a-Service solution using AWS, Terraform, Rancher MCM, and Kubernetes RKE2, reducing on-premises footprint and saving over **\$8M annually** through automated processes and optimized resource utilization.
- **AI/ML & Zero Trust Integration:** Enhanced hybrid-cloud strategy by embedding **AI/ML capabilities** for intelligent workload placement and adopting **Zero Trust security principles** to future-proof infrastructure and strengthen compliance posture.
- **Migration Strategy Leadership:** Advised application owners using AWS Migration Hub, CAST, and Veracode to assess, rehost, refactor, or replace legacy systems. Delivered a **multi-year migration roadmap** with MVP milestones to ensure seamless transition while maintaining mission-critical operations.
- **Performance & Reliability Engineering:** Directed large-scale load testing and performance validations on AWS, implementing high-availability, low-latency architectures that improved overall system resilience.
- **Stakeholder Engagement & Training:** Delivered technical briefings and training sessions for leadership and clients on Zero Trust, cost optimization, and dynamic scaling, influencing enterprise adoption of secure, cost-effective cloud practices.

BOOZ ALLEN HAMILTON, ROBINS AFB, GA, JUNE 2021 TO NOVEMBER 2023

#### CLOUD ARCHITECT

- **DoD CLOUD MIGRATION LEADERSHIP:** Guided AWS cloud migrations for a 3-tier systems architecture, re-platforming legacy DoD systems into highly available, fault-tolerant solutions using the AWS Well-Architected Framework, achieving significant cost savings and improved resilience.
- **Infrastructure-as-Code Automation:** Authored CloudFormation stacks and Terraform scripts to automate deployments, replacing manual builds and aligning with IaC standards across Secret Region (C2S) environments.
- **Secure Containerization:** Led the configuration and deployment of hardened Docker containers via Platform One, publishing image builds to AWS ECR and ECS for compliant, production-grade use.
- **Data & Observability Enablement:** Implemented Elastic (ELK) stack and integrated CloudTrail logging to capture API and S3 events across dev/test/prod, laying the groundwork for advanced AI/ML analytics and security insights.
- **Security & Compliance:** Strengthened VPC security by deploying AWS Security Hub with CIS benchmarks, automated compliance via AWS Config rules, and streamlined AMI release pipelines with Lambda and EventBridge.
- **Agile Delivery & Collaboration:** Leveraged Agile Scrum to drive 12-week sprints, authored SOPs in Confluence, and facilitated sprint planning, ensuring timely MVP deliverables for mission stakeholder.

GA ANG, ROBINS AFB, GA, FEBRUARY 2016 TO JUNE 2021

#### IT SPECIALIST NETWORK ENGINEER

- Led IT operations supporting 3,500+ users across three geographically separated units (Robins AFB, Dobbins AFB, Fort Gordon), ensuring continuity of mission-critical communications.
- Maintained and optimized VMware vSphere virtual environments delivering SaaS capabilities and cloud collaboration solutions, laying the groundwork for hybrid-cloud adoption.
- Directed integration, maintenance, and troubleshooting of secured LAN/WAN, intrusion detection, and VoIP systems, improving network performance and reliability.
- Strengthened cybersecurity posture by deploying DISA standards, vulnerability scans, and RMF compliance controls, reducing risk exposure across classified enclaves.
- Supervised IT support team in fulfilling 6,000+ service desk tickets, prioritizing mission-critical incidents and improving response efficiency.

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## EDUCATION AND CREDENTIALS

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BACHELOR OF COMPUTER SCIENCE IN INFORMATION TECHNOLOGY

*Bluefield State College*

ASSOCIATE OF APPLIED SCIENCE IN ELECTRONIC SYSTEMS

*Community College of the Air Force*

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## CONTINUOUS EDUCATION

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- AWS Machine Learning Engineer Associate
- Terraform Certified Associate
- CompTia Security + CE
- A Cloud Guru AWS Certified SAP-C01 Course
- AWS Certified Solutions Architect – Professional
- A Cloud Guru AWS Certified DVA-C01 Coursework
- AWS Certified Developer Associate
- Microsoft Certified Azure Administrator Associate

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## PROJECT DEMONSTRATIONS AND PROOFS OF CONCEPT

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- [Demo Dashboard Website](#)
- [AWS Bedrock AI Chat Assistant Live Demo](#)
- [AWS High Availability Proof of Concept Video Demo](#)
- [Terraform VPC Setup Demo](#)
- [Cloudwatch Dashboard & SNS Demo](#)
- [EventBridge Lambda Demo](#)
- [AWS CodeCommit Demo](#)
- [GitHub Repositories](#)