

# Dharma Bandaru

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Saint Louis, MO

## SUMMARY

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- Senior Software Engineer with 5+ years transforming enterprise operations through **Generative AI, Full-Stack Development, DevSecOps, and Cloud Security**. Led development of key modules of a AI platform serving **10+ internal departments**, achieving significant productivity gains. Separately drove **\$250K+ annual cost savings** through AWS optimization and security tooling consolidation. Built secure, scalable cloud architectures while leading teams and mentoring engineers.

## EXPERIENCE

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- **Ameren Corporation (NYSE:AEE)** Saint Louis, MO  
*Senior Software Engineer - Generative AI* Aug 2023 – Present
  - **Athena AI – Enterprise RAG Platform:** Architected key modules for proprietary Retrieval-Augmented Generation platform using **LangGraph, LangChain, Anthropic Claude 3.5 Sonnet, MongoDB, and Amazon Kendra**, enabling gas engineers to retrieve answers from 2,000+ documents in **minutes vs hours**.
  - **No-Code AI Agent Framework:** Engineered MongoDB-powered deployment framework enabling rapid AI agent deployment without code modifications, reducing **operational overhead by 3x** for development teams and accelerating time-to-market for new AI solutions.
  - **Regulatory Compliance Automation:** Streamlined clean energy compliance workflows by enabling document generation from 2,000+ regulatory documents with minimal prompts, transforming manual processes that previously took hours into automated workflows.
  - **GenAI Evaluation:** Implemented **Databricks Mosaic AI evaluation** framework, expanding benchmarking coverage and reducing erroneous outputs by **25%**.
  - **Security First Approach:** Established secure CI/CD pipelines using Jenkins, SonarQube, Prisma Cloud, and WIZ, incorporating prompt injection protection and output guardrails, as a part of AI safe practices.
  - **API Modernization:** Engineered Athena CMS APIs with Next.js and TypeScript, replacing legacy Power Automate and SharePoint systems.
  - **Test Suite Optimization:** Revamped ReadyAPI test suite with reusable functions, decreasing test creation time by **30%** and reducing maintenance overhead by **20%**.
- **MTX Group** Frisco, TX  
*Team Lead – Data & Integrations / Sr. Consultant* Mar 2021 – Jul 2023
  - **Team Leadership:** Led and mentored team of **4 engineers**, delivering **10+ enterprise integration projects** on time while improving team efficiency by **20%**.
  - **Cost Optimization:** Drove annual cost savings of **\$250,000+** by consolidating security tooling, optimizing AWS resources, and automating workflows.
  - **AWS Security Implementation:** Implemented GuardDuty, Security Hub, Inspector, and centralized CloudTrail logging across **15+ AWS accounts**, improving threat detection by **50%**.
  - **Integration Solutions:** Developed and deployed **15+ Python APIs** streamlining data exchange processes, enhancing system compatibility by **30%**.
  - **System Integrations:** Spearheaded Salesforce-AWS integrations improving data syncing efficiency by **40%** and created HL7 mapping solutions reducing integration errors by **25%**.
  - **Infrastructure Automation:** Leveraged Amazon S3 and Lambda to automate data storage solutions, reducing manual processing time by **50%** and achieving significant operational cost savings.
  - **Threat Detection:** Designed real-time threat notification system delivering alerts via email and SMS, improving incident response times and strengthening AWS security posture.
- **Amazon** Madison, WI  
*Software Development Engineering Intern* May 2020 – Aug 2020
  - **Automated Merchandising System:** Delivered Java/Spring-based automated style-to-category mapping system for Shopbop and EastDane, eliminating manual categorization and saving merchandising teams **7–9 hours/week**, totaling **350 hours annually** across departments.
  - **Performance Optimization:** Crafted comprehensive unit tests using JUnit and Mockito, improving code reliability and reducing bug reports by **30%**; utilized AWS S3 for optimized data transfers.

## TECHNICAL SKILLS

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- **AI & Machine Learning:** LangGraph, LangChain, Anthropic Claude, OpenAI, RAG Systems, Databricks Mosaic AI, Amazon Kendra, Bedrock
- **Programming & Frameworks:** Python, Java, TypeScript, JavaScript, Groovy, Next.js, Spring Framework, Node.js
- **Cloud & Infrastructure:** AWS (5 certifications), Azure, GCP, Terraform, MongoDB, S3, Lambda, EC2, CloudTrail
- **DevSecOps & Security:** Jenkins, SonarQube, Prisma Cloud, WIZ, GuardDuty, Security Hub, Inspector, CI/CD Pipelines
- **Integration & APIs:** REST APIs, Salesforce, HL7, ReadyAPI, Qvera Engine, Power Automate, SharePoint
- **Methodologies & Tools:** Agile/Scaled Agile, Git, JUnit, Mockito, Atlassian Suite, Kanban

## EDUCATION

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- **New Mexico State University** Las Cruces, NM  
• *Master of Science in Computer Science*
- **Vel Tech Rangarajan Dr. Sagunthala R&D Institute** Chennai, India  
• *Bachelor of Technology in Computer Science*

## CERTIFICATIONS AND AWARDS

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- **AWS Certifications::** Security Specialty, Machine Learning Specialty, Solutions Architect-Associate, Developer, Cloud Practitioner
- **Additional Certifications::** Databricks Academy Accreditation - Fundamentals, Salesforce Platform Developer-1, Salesforce Administrator
- **Awards::** MTX Group: Performance Excellence Award - Q3 2022; NMSU: Scholar Dollar (Top Performer – Department of CS, Spring 2019); HackerRank: Programming Gold Badge, SQL Silver Badge

## ADDITIONAL EXPERIENCE

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- **New Mexico State University** Las Cruces, NM  
• *Graduate Teaching Assistant - Computer Science* Jan 2019 – Aug 2020
  - **Teaching & Mentoring:** Taught and graded coursework for 5 core CS courses including Object-Oriented Programming, Data Structures & Algorithms, and Machine Programming; facilitated biweekly stakeholder meetings ensuring alignment with academic objectives.
- **Tamkang University** Taiwan  
• *Research Associate - Python Developer* Jan 2018 – Jun 2018
  - **Sentiment Analysis Research:** Collaborated with Prof Hui-Huang Hsu on sentiment analysis methodology using Twitter data, developing innovative approaches to identify sentiment across domains using machine learning techniques.