

Tarun Thatthvik Paladugu

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Senior GenAI Engineer & Solutions Architect

Pioneering GenAI architect who implemented RAG solutions before mainstream adoption (2022).

Led architecture and delivery of enterprise AI implementations with measurable business impact.

End-to-end AI expertise: LLM orchestration, AWS cloud architecture, MLOps, and Production Deployment.

Technical Expertise

GenAI/ML:	RAG Architecture, LLMs (GPT-4, Claude, Bedrock), Vector Databases (OpenSearch), NLP, Prompt Engineering, Prompt Caching.
Cloud & DevOps:	AWS (Lambda, Bedrock, API Gateway, CloudWatch, EC2, S3), Terraform/OpenTofu, GitLab CI/CD, SAM, CloudFormation.
Languages & Tools:	Python, SQL, Git, SnapLogic, DataRobot, JIRA, REST APIs.

Professional Experience

LoganData Inc. Lead AI Engineering & GenAI Architect GenAI Innovation & Architecture (2022-Present)	<i>Westford, MA</i> <i>July 2021 – Present</i>
<ul style="list-style-type: none">Pioneered company's GenAI practice as primary architect, designing and delivering multiple enterprise AI solutions and POCs.Recognized RAG's potential for enterprise data security before mainstream adoption, leading GenAI strategy and speaking at company AI conference.Led migration from AWS Kendra to Bedrock Knowledge Base with vector search, achieving substantial cost reduction.Designed secure meeting transcript analysis system using compartmentalized models, solving enterprise data privacy concerns.	
Technical Leadership & Implementation	
<ul style="list-style-type: none">Built production AI pipeline using Python OOP, Terraform IaC, and GitLab CI/CD with automated testing.Implemented comprehensive MLOps practices: feature branch isolation, regression testing, CloudWatch monitoring.Mentored engineers on GenAI best practices and trained colleagues on AI implementation across multiple projects.	
Data Engineering Foundation (2021-2023)	
<ul style="list-style-type: none">Developed 10+ enterprise data pipelines using SnapLogic, achieving company's highest consultant rating.Created NLP-powered analytics dashboard for university dean, analyzing course evaluations to inform tenure decisions.	
Alnylam Pharmaceuticals (via LoganData Inc.) Senior GenAI Consultant	<i>Cambridge, MA</i> <i>Dec 2021 – Present</i>
<ul style="list-style-type: none">Lead operations and architecture for all GenAI initiatives within Data Integration and ML department.Architected document processing system achieving significant productivity improvements, processing thousands of critical documents.Reduced document processing time by 60% while maintaining high accuracy standards.Established GitLab CI/CD pipeline with automated testing, significantly improving deployment frequency.Implemented prompt caching for Claude on AWS Bedrock, significantly reducing operational costs.	
New York University Graduate Student Assistant	<i>Brooklyn, NY</i> <i>Feb 2021 – May 2021</i>
<ul style="list-style-type: none">Developed Python notebooks for Reinforcement Learning and Model Predictive Control courses.Implemented optimal control algorithms including Dynamic Programming and Linear Quadratic Regulators.	
Probot Artistry – Robotics Program Specialist	<i>Sept – Dec 2020</i>
<ul style="list-style-type: none">Developed middle school STEAM curriculum integrating robotics.	
Tata Consultancy Services – Project Intern	<i>May – June 2018</i>
<ul style="list-style-type: none">Implemented DBSCAN algorithm from scratch in Python.	

Education

Master of Science, Mechatronics, Robotics & Automation	New York University - 2021
Bachelor of Technology, Mechatronics Engineering	Manipal Institute of Technology - 2019

Certifications & Achievements

AWS Certified Cloud Practitioner
SnapLogic Enterprise Automation Professional | DataRobot AI Platform Certified
Featured Speaker at LoganData AI Conference | First Place, CSAW Hack3D Competition (2020)
Merit Scholarship, NYU Graduate School of Engineering (2019-2021)