

# Saramsha Dotel

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Experienced software engineer & technical leader with 7-year track record of planning, designing and building production-grade systems. I specialize in developing AI systems with strengths across backend, data engineering & cloud technologies and have led and scaled technical teams & projects.

## KEY SKILLS

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- **Languages:** Python, Javascript/Typescript
- **Agentic AI Systems:** Multi-Agent Workflows, Harness Engineering, Designing Agent Memory, Retrieval Augmented Generation (RAG), Prompt Engineering, AI Agents Evaluation
- **Backend Engineering:** System Design, RESTful APIs, GraphQL, Django, FastAPI, Flask, NodeJS
- **Databases:** PostgreSQL, SQL, MongoDB, DynamoDB, Elasticsearch, Redis, Vector Databases
- **Cloud & Platform Engineering:** Docker, Terraform, AWS (EC2, ECS, S3, Lambda, ECR, CDK, Cloudformation, Sagemaker), GCP, Grafana, Prometheus, CI/CD, DevOps.
- **Technical Leadership:** People Management, Product Management, Project Management

## WORK EXPERIENCE

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### Senior Software Engineer (Applied AI)

Sept 2025 - Present

*Warner Bros. Discovery*

- Led the design and development of a large-scale natural language video search and retrieval system across 1M+ hours of film and TV content, introducing architectural improvements that **increased retrieval performance by 15%**.
- Built an **evaluation and benchmarking** setup with MLFlow to systematically compare embedding models, re-rankers, LLMs, prompting strategies, and hybrid retrieval approaches, enabling data-driven model selection.
- Led the technical development of a domain specific **AI agent harness** for the Media Supply Chain team with self-improving memory, managed code execution and automatic session management that automated workflows for the Global Content Operations team.

### Senior Software Engineer (Technical Lead)

Apr 2025 - Sept 2025

*reAlpha Tech Corp.*

- Led the technical development of a natural language home search for a platform handling **5 million+ property data**. Automated internal real estate operations like scheduling tours and following up with leads.
- Developed AI agents to automate real estate operations like following up with leads, information extraction and from loan documents **reducing processing time by 90%**.
- Redesigned a legacy NLP based conversational AI SaaS platform into an LLM-based system with **multi-agent orchestration, Retrieval Augmented Generation (RAG)** pipeline. Deployed multi-tenant microservice to AWS ECS using Docker, Terraform and Github Actions.

**Co-founder & Chief Technology Officer**  
*Naamche Inc (acquired by reAlpha Tech Corp.)*

Sep 2020 - Apr 2025

- Co-founded and scaled an AI software development studio from **3 to 40 engineers**; \$0 to \$500k ARR, built products for numerous clients, and led to a **successful acquisition** by reAlpha Tech Corp.
- Led the backend and platform engineering of a property management software for a client (myAlphie) that was later sold to Crawford Hoying for \$6 million.
- Engineered a real estate property evaluation engine that scored properties on their investment potential by using **predictive modeling** algorithms to analyze spatio-temporal and socio-economic data.
- As the CTO, handled **end-to-end client communications**, requirements gathering, full-stack software development and progress reporting to ensure all customers are satisfied and business objectives are met.

**Machine Learning Engineer**  
*Fusemachines*

Sep 2019 - Sep 2020

- Leveraged data science techniques like predictive modeling, data mining, natural language processing and time series analysis to forecast the sales and revenue of video games for Take 2 Interactive.

## EDUCATION & TRAINING

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**Bachelors in Computer Engineering**  
*Institute of Engineering, Tribhuvan University*

Dec 2015 - Sep 2019  
Pulchowk, Nepal

- Graduated with **FIRST** position among all students in the batch with aggregate score of **85.3%**
- Recipient of **Academic Excellence Award** for the years: 2016, 2017 and 2019.

**MicroMasters in Artificial Intelligence**  
*edX, Columbia University*

Apr 2018 - Dec 2020

- Credentials: CSMM.101x: Artificial Intelligence (AI), CSMM.102x: Machine Learning

## RESEARCH PUBLICATIONS

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**Dotel, S., et.al. (2020). Disaster Assessment from Satellite Imagery by Analysing Topographical Features Using Deep Learning. IVSP20, 86-92.**