



# GARIMA SWAMI

## SOFTWARE DEVELOPER | AI ENGINEER

Cottbus, Germany | [Garimaswami646@gmail.com](mailto:Garimaswami646@gmail.com) |  
[linkedin.com](https://www.linkedin.com) | GitHub :[workgarimaswami](https://github.com/workgarimaswami) | [Portfolio - garimaswami](#)

### EDUCATION

M.Sc. in Artificial Intelligence 10/2025 - Present  
Brandenburgische Technische Universität | Germany

B.Sc. in Computer Science 2021 - 2024  
M.S. Ramaiah University of Applied Sciences | Bengaluru, India

- GPA: 1.9 / 4.0 (German equivalent)

### WORK EXPERIENCE

**Software Developer | CodingPro | Bengaluru, India** 07/2024 – 04/2025

- Developed Python backend services handling 10K+ daily requests with 99.9% uptime
- Built 5+ REST APIs integrated with ML pipelines, reducing processing time from 4hrs to 30min
- Automated data analysis pipelines, reducing manual effort by 40 hours/week

**Software Developer | Indian Space Research Organisation | Bengaluru** 02/2024 – 05/2024

- Developed reliability analysis software (FMECA) for satellite subsystems in Linux-based environments.
- Automated engineering data analysis and reporting pipelines, improving evaluation efficiency.
- Implemented simulation-based failure modelling and structured backend workflows using Java.

**Full Stack Intern | Municipal Corporation of Delhi | Delhi, India** 06/2023 – 07/2023

- Built frontend components and database integrations for waste-clearing survey applications.
- Contributed to smart-city waste management solutions using Java, IoT, GIS, and geotagging.

### PROFESSIONAL SKILL

**AI Engineering & Machine Learning:** Python, PyTorch, TensorFlow, Scikit-learn, Hugging Face, NLP, LLMs, Prompt Engineering, Retrieval-Augmented Generation (RAG), Computer Vision, Model Training & Evaluation

**Cloud & MLOps:** AWS (EC2, S3, IAM, Elastic Beanstalk, CloudWatch), Docker, CI/CD (GitHub Actions), Infrastructure as Code, Model Deployment, API Monitoring, Auto-scaling

**Backend & Software Engineering:** Python, Java, Flask, FastAPI, REST APIs, Object-Oriented Programming (OOP), Linux, Git, Backend Development

**Data Science & Data Processing:** NumPy, Pandas, SciPy, Feature Engineering, Data Preprocessing, Statistical Analysis

**Databases & Vector Search:** SQL, MySQL, FAISS, ChromaDB

**Monitoring, Testing & Tools:** CloudWatch, Prometheus, Grafana, pytest, unittest, Jupyter Notebook, Matplotlib

### PROJECTS | [Github](#)

#### End-to-End MLOps Pipeline | AWS · Docker · CI/CD ([demo](#))

- Built production ML pipeline (training → deployment → monitoring)
- Deployed Flask REST API on AWS Elastic Beanstalk (auto-scaling, 100+ users)
- Automated CI/CD; reduced deployment time by ~85%
- Dockerized services; achieved ~99.5% uptime with low-cost cloud setup (<\$20/month)
- Implemented model versioning enabling A/B testing, improving prediction accuracy by 8%
- Built full-stack application with scikit-learn model (89% R<sup>2</sup> score) and interactive frontend

#### **Enterprise Knowledge Assistant (RAG System) | LLMs · LangChain · Vector DB**

- Developed RAG-based system with semantic search and vector database indexing
- Implemented document ingestion, chunking, and hybrid retrieval
- Built FastAPI backend for real-time knowledge querying
- Dockerized deployment for scalable environments

### PUBLICATIONS

- Early detection of dyslexia Using Multimodal Analysis, INCOFT, 2025
- WeSAFE : Enhancing Human Security Mobile Application, IJIRCCE, 2023