

Thirupathi Thangavel

Experience: 11 years

Location: Bengaluru, India

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SOFTWARE SKILL SET

- **Programming languages:** Python, C, C++, Java, Scala, JavaScript
- **Libraries and Frameworks:** PyTorch, PySpark, HuggingFace, LangChain, MCP, Crew AI, React
- **ML Ops and Cloud tools:** AWS, Sagemaker, Databricks, Mlflow, Docker, Kubernetes, Snowflake, Splunk
- **ML areas:** Recommender systems, NLP, LLMs, Code Generation, RAG, Fine Tuning, Multi-Agent system

EMPLOYMENT HISTORY

Staff Machine Learning Engineer, Okta

Nov 2023 – Present

Log Investigator Agent

- Developed an AI agent for log troubleshooting using RAG and fine-tuned models.
- Optimized prompts (Chain of Thought, reference augmentation) to improve response accuracy.
- Achieved 87% accuracy and 80% positive feedback from users.

UI Framework Migration using LLM

- Built an AI-powered assistant to migrate 200 UI packages from Backbone.js framework to React.
- Achieved faster migration with minimal manual effort.

Software Engineer III (Machine Learning), Google

Aug 2022 – May 2023

Feedback processing using NLP

- Designed and developed highly scalable models to automatically process customer feedback of various Google products and tag them with attributes like request type and component in real time.
- Deployed across 5 Google products in 100+ languages.

Data Scientist II, MoEngage

Jan 2020 – Aug 2022

User propensity to do any action

- Designed and developed a generic end-to-end model that predicts the propensity of each user to perform any custom action or combination of actions like conversion, churn or dormancy.
- Used pyspark for distributed processing to scale to 200M users and 1200 features.

Automatic user segmentation

- Built a model which identifies interesting user segments based on specified target KPIs. This allows marketing teams to achieve their KPI targets better by targeting the favorable user segments.

Projects mentored

- Sherpa - multi-arm bandit system for marketing teams to send notifications.
- Best time & channel to send notification for each user.

Data Scientist, Goibibo

July 2018 – Jan 2020

Hotel search ranking and recommendation

- Built a personalized hotel search ranking for 110M users and 600k hotels. Initially used collaborative filtering on user bookings data and later moved to product embeddings using NLP calculated from user sessions data.
- Improved bookings share of top 20 ranks from 18% to 54%.
- Increased bookings from similar hotels suggestions by 114%.

Dynamic pricing of hotels using Reinforcement Learning

- Developed model to update hotel prices real time based on varying demand and price elasticity to increase sales and revenue.

- Increased the overall conversion rate by 15% while maintaining the same net margin.
- Scaled to run on all cities in India with complete automation.

Data Scientist, Embibe

July 2017 – July 2018

Smart tagging of questions

- Built a machine learning model to automatically tag academic questions with meta parameters such as relevant concepts (from over 45,000 concepts), difficulty level, time required to solve, bloom level, etc.
- Integrated the model with a knowledge graph, which allows it to leverage interconnected data and semantic relationships to enhance tagging accuracy.

Automatic question paper generation

- Built system using genetic algorithm to generate academic question paper for entrance examinations based on various parameters like difficulty level distribution, chapter & concept-wise distribution, time to solve.

Senior Software Engineer, Sandvine Incorporated

June 2014 – June 2017

TCP Accelerator Integration

- Independently integrated Sandvine's newly acquired product, TCP Accelerator from Teclo Networks, with Sandvine's other products working with team in Zurich.

ZeroMQ Messaging Interface

- Built a reliable and secure messaging interface based on ZeroMQ for use by Sandscript (Sandvine's policy language) and other C++ applications.

Code owner for Linux Platform

- The code area included virtualization (kvm & esxi), service startup (sysVinit & systemd) and rpm packaging.

OTHER PROJECTS

Mentor & Helpdesk, GCP Agentic AI Day Hackathon

July 2025

- Mentored 20+ teams during a 30-hour AI innovation sprint with 2,000+ participants and 700+ teams.
- Assisted at the event helpdesk, resolving technical issues and enabling smooth participation.
- Guided teams in refining problem statements, accelerating prototyping, and implementing solutions using LLMs and Google Cloud AI tools (Vertex AI, Agent Development Kit, Firebase).

Chatbot for Public Use

May 2023 – Aug 2023

- Built a chatbot capable of answering questions by people of Tamil Nadu regarding Government schemes, orders and procedures.
- Capable of answering questions in English and Tamil.
- Tools used: Python, LangChain, OpenAI API, GPT 4, Pinecone, OCR, Flask, Generative AI

Data Science Instructor, BossCoder Academy

July 2023 – Oct 2023

- Designed a comprehensive 6-month curriculum for a Data Science & Machine Learning program.
- Taught classes and guided a cohort of 40 students through hands-on exercises, projects, and practical industry use cases.

ACHIEVEMENTS

- Achieved top 7% rank in **ACM ICPC 2013**, Asia Regionals - Amritapuri.
- Top 16% contributor to **Stack Overflow** with a reach of 2.8M people ([profile](#)).

EDUCATION

Course	Institute	CGPA	Graduation
Bachelor of Technology - Electrical and Electronics Engineering	National Institute of Technology, Tiruchirappalli	7.58	2014