

# Tharun S.D.R.

Software Developer — Full Stack & AI/ML

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## Profiles

**Github**

[dexterhere04](#)

 **LinkedIn**

[tharun-sdr](#)

## Experience

**BlueScope Technologies**

Chennai, India

AI Intern

Jun 2024 – Aug 2024

Built a supervised ML pipeline for **financial forecasting on 30K+ RBI mobile-banking transaction records**, handling end-to-end data preprocessing, feature engineering, and model fine-tuning. Evaluated models with precision, recall, F1, and ROC-AUC, and delivered results through interactive dashboards built with **Angular and Spring Boot**, integrated into the company's Java codebase.

<https://bluescopetech.com/>

**Zulip**

Open Source Contributor

Implemented a message-history viewing feature for Zulip, an open-source team chat platform, submitting pull requests and iterating with maintainers through code review. Contributed across the **Django** backend and **TypeScript/Handlebars** frontend.

<https://github.com/zulip/zulip>

## Projects

**DSA Lab AI — Self-hosted AI Coding Practice Platform [React, Fastify, SQLite, Drizzle ORM, Docker, TypeScript]**

Built a self-hosted, LeetCode-style platform with an AI problem generator (constraints, examples, hints, difficulty), public and hidden test-case judging, and online Java execution via a local runner. Designed a pnpm monorepo with dockerized **React** and **Fastify** frontend/backend and SQLite with Drizzle ORM persistence.

[GitHub Repo](#)

**Code-Islands-3d — 3D Codebase Visualizer [React Three Fiber, Three.js, TypeScript, Babel]**

Built an interactive 3D visualizer that parses source-code ASTs with Babel and renders codebases as explorable island archipelagos in the browser.

[GitHub Repo](#)

**FloorPlan-Pipeline — Natural Language to Floorplan Generator [Python, PyTorch, GNNs, Stable Diffusion, ControlNet, LLMs]**

Built an end-to-end system converting natural-language room descriptions into structured floorplan graphs, predicted spatial layouts, and architectural renderings. Trained a graph neural network (RoughLayoutGNN, 3-layer GINEConv) on 100+ ResPlan floorplans to predict room bounding boxes, and conditioned **Stable Diffusion v1.5 with ControlNet** to rasterize predicted layouts into architectural images.

[GitHub Repo](#)

## Education

**Vellore Institute of Technology, Chennai**

Computer Science & Engineering

Bachelor of Technology

Expected 2027

# Skills

## Programing

Java, Python, C++, JavaScript, TypeScript, SQL

## Backend & APIs

FastAPI, REST APIs, JWT, Authentication & Authorization, SQLAlchemy

## Frontend

JavaScript/TypeScript, Responsive UI Development, React.js

## Databases

PostgreSQL, SQL, Database Design, ORM

## Generative AI

LLM APIs, Prompt Engineering, Text Summarization, AI Application Development, MCP

## Developer Tools

Git, GitHub, Linux, Docker, Postman, Figma

# Certifications

## AWS Certified Cloud Practitioner

Amazon Web Services

<https://aws.amazon.com/certification/certified-cloud-practitioner/>

# Achievements

Winner — Data Impossible AI CTF Hackathon

Data Impossible

2nd Place — CyberZeroDay 2 CTF

CyberZeroDay