

Adithyan Madhu

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EXPERIENCE

Software Development Engineer (SDE) Intern

Noida, UP

Newgen Software Technologies Limited

Apr 2024 – Jul 2024

- Enhanced the Omnidesk employee management platform as part of the Software Engineer Enablement program, contributing to performance, stability, and user experience improvements.
- Resolved 50+ user-reported bugs** and UI issues through manual testing, enhancing system stability and user experience.
- Engineered multiple form modules for Omnidesk, **accelerating form load time by 20%** and enhancing data reliability through optimized backend queries and robust error handling.
- Collaborated with senior engineers in code reviews and sprint planning, gaining hands-on experience with Agile development practices in a production-scale environment.
- Techstack/languages: **Core Java, Servlets, HTML**

Campus Outreach - devrel intern

Remote

Geeks for Geeks

Jun 2022 – Jun 2023

- Represented GeeksforGeeks as a Campus Ambassador, serving as the primary link between the platform and the student community.
- Organized and hosted technical workshops, coding contests, and awareness sessions for **300+ participants**, fostering a strong developer culture on campus.
- Mentored and guided **50+ students** on Data Structures & Algorithms (DSA) and core CS fundamentals, improving peer learning and problem-solving skills.

PROJECTS

Vichaar - Chain your Thoughts | [\[Link\]](#) [🐙 Github](#)

Apr 2025 – July 2025

- Prototyped an AI-powered idea validation platform capable of validating ideas by leveraging vector embeddings and Google Custom Search, allowing similarity checks against a corpus of **120M+ patents**.
- Designed modular backend architecture with PostgreSQL for persistence, ensuring scalability for future extensions.
- Automated the manual validation workflow, reducing research effort significantly (estimated 70% faster vs. manual lookup).
- Tech Stack: **FastAPI, Vite, GoogleAPI, Gemini 2.5 Flash, PostgreSQL**

ReadingRoom | [\[Link\]](#) [🐙 Github](#)

Jan 2025 – May 2025

- Built a social reading platform with threaded discussions, reviews, and AI-driven book chats and semantic book recommendation, supporting multi-user interactions.
- Programmed an AI-driven book Discussion system leveraging **ChromaDB and Gemini 2.5 flash** embeddings, boosting user engagement and **chat relevance by 35%**.
- Constructed a **lightweight RAG pipeline** integrating web-scraped book metadata and vector grounding, reducing AI chat response hallucinations by 40%.
- Tech Stack: **Next.js, Django, ChromaDB, Gemini API, PostgreSQL**

Water Meter Reading Scan RCNN Model | [🐙 Github](#)

May 2023 – Nov 2023

- Engineered an end-to-end OCR pipeline for automated water meter reading, **processing over 1,244 real-world images** with varying meter types and angles.
- Developed a **UNet-based image segmentation model** with a ResNet34 backbone, achieving a **0.976 IoU score**.
- Built a Faster RCNN model (Detectron2) **trained on 200+ manually labeled** digit instances to accurately classify digits from segmented meter images.
- Tech Stack: **OpenCV, RCNN, TensorFlow, UNet, ResNet34, Detectron2, Python**

TECHNICAL SKILLS

Languages: C++, Python, Go, TypeScript, Java

Web Frameworks & Backend: React, Nextjs, Django, FastAPI

Database: PostgreSQL, MySQL, SQLite, ChromaDB

Tools & Platforms: Git, Docker, Gemini API, Google API, NumPy, Pandas, Colab, AWS

Areas of Interest: Software Development, Backend Development, DevOps, Machine Learning, Data Engineering, MLOps

EDUCATION

KCC Institute of Technology and Management

Bachelor of Technology in Computer Science — First division

Relevant Coursework: DSA, Operating Systems, DMBS, OOPs, Computer Networks

Greater Noida, UP

Aug. 2021 – May 2025

CERTIFICATES & ACHIEVEMENTS

Certifications:

- [Machine Learning Specialization \(Andrew Ng\)](#)
- [Git & GitHub \(Google\)](#)

Achievements:

- **Top 8% Worldwide** with 1790 Rating on [Leetcode](#)
- **Finalist** – ISRO's *Ideate for Space* Innovation @ IIT D
- Qualified **GATE 2025** Computer Science
- Adobe Creative Challenge 2020 - **National Level First Rank**
- Runner Up in BU debugger contest.
- **1000+ DSA Questions Solved** across platforms