

# MADHAV MERUVA

Software Developer | AI/ML & Generative AI Enthusiast | BTech CSE KMIT'27

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## SUMMARY

Computer Science undergraduate skilled in Java, Python, JavaScript, data structures, backend development, and ML-Driven application building. Experienced in developing full-stack and AI-based systems through hands-on project including generative models, scoring engines, and ML pipelines. Seeking an internship to apply strong engineering fundamentals, problem-solving ability and project-building experience to real-world software development.

## EDUCATION

### Keshav Memorial Institute of Technology (KMIT)

2023 - 2027

Bachelor of Technology, Computer Science Engineering CGPA - 8.5

### Sri Chaitanya Junior College

2021 - 2023

Intermediate (MPC) GPA - 9.8

## PROJECTS

### AI Startup Idea Validator (LLM + Full-Stack) [LIVE](#) | [CODE](#)

Aug 2025 – Oct 2025

- Built an **AI-driven platform** to validate startup ideas using LLM, AI agents, and real-time feedback.
- Implemented automated evaluation for **feasibility, market size, uniqueness, team and business model quality**.
- Designed a **3-tier architecture** integrating LLM pipelines, REST APIs, CRUD operations, and client dashboards.
- Added advanced features like **AI Suggestions, Expert Chatbot, and AI MCP Chatbot** to improve user experience.
- Built using **React.js, Node.js (Express), JWT, MongoDB, PineconeDB, FastAPI, LangChain, OPENAI API and AWS**.

### Financial Question Answering System (FinQA) [LIVE](#) | [CODE](#)

Feb 2025 - Jun 2025

- Built a **neuro-symbolic QA system** using a BERT retriever, LSTM program generator, and symbolic executor.
- Implemented full ML lifecycle pipelines: **preprocessing → modular training → integration → evaluation**.
- Improved interpretability with **program-step reasoning** and symbolic execution achieving ~80% accuracy.
- Developed custom training modules aligned with financial domain patterns.
- Built using **Flutter, FastAPI , PyTorch , Firebase for Authentication**, ensuring scalability and performance.

### Jewellery Design Pattern Generator (Pix2Pix GAN) [LIVE](#) | [CODE](#)

Aug 2024 - Dec 2024

- Developed a sketch-to-image generation system using **Generative Adversarial Networks (GANs)** to transform hand-drawn jewellery designs into realistic images. Implemented a **3-tier client-server architecture**.
- Developed a real-time inference pipeline enabling **instant model previews** for uploaded sketches.
- Improved output quality through **iterative training + image-cleaning techniques**, achieving ~90% accuracy.
- Built using **React.js, Node.js (Express), JWT, MongoDB, Tensorflow and Flask**, ensuring performance.

## SKILLS

- **Languages:** C/C++, Python, Javascript, Java
- **Frameworks:** React JS, Express JS, FastAPI, Tensorflow, Pytorch
- **Databases:** MongoDB, MySQL
- **AI/ML:** Machine learning, Deep Learning, LLM Pipelines, AI Agents
- **Cloud & DevOps:** Docker, AWS Services

## ACHIEVEMENTS AND CERTIFICATES

- Solved **200+ problems on LeetCode**, strengthening problem-solving, algorithms, and debugging.
- Participated in national-level hackathons at **Vasavi & VNRVJIET**, delivering high-impact solutions under time pressure. Secured a **top team award** at the KMIT Project Expo.