# Aditya Godse

## EDUCATION

### **AISSMS** Institute of Information Technology

Bachelor of Technology in Artificial Intelligence and Data Science

• Minor Course: Instrumentation Engineering

Expected graduation June 2026 Current CGPA: 7.72/10

### SKILLS

Languages: Python, Javascript, Typescript, Java, C/C++, Bash, Perl, Go

Tools: GitHub Actions, CI/CD pipelines, Shell scripts, Docker, scikit-learn, TensorFlow, PyTorch, OpenCV, Next.JS

#### EXPERIENCE

## Webmaster, IOIT ACM Student Chapter | Management, SEO, DevOps

Sept. 2024 - Present

- Designed and developed the **IOIT TENET** website, reaching 15,000 users within just 3 weeks.
- Increased event registration by implementing custom forms and building visually engaging 3D animations using GSAP, Three.js, and WebGL.
- Moderated a Web3 panel discussion at TENET'24 before an audience of 200 students.

#### OPEN SOURCE

#### **OpenSSL** | C, Perl, testing, bash

- Implemented new -cipher CLI option in OpenSSL's req command enabling users to specify private key encryption algorithms, enhancing security flexibility beyond previous default 3DES encryption. (PR: 25796)
- Updated default ciphers for for req, cms and smime apps, and updated documentation for man pages and usage examples, following OpenSSL's strict coding and documentation standards. (PR: 25839)

#### **PROJECTS**

#### Mermaid Mind (Web/LLM) | Monaco Editor, LLM, Gemini, Next.js, MongoDB, NextAuth, tRPC

- Built a web application that converts natural language inputs into Mermaid diagrams using LLMs. Fine-tuned **Deepseek R1** on a custom dataset to improve diagram generation accuracy, achieving significantly better results compared to the base model. For the production website, I used the **Gemini 1.5 Pro** model.
- Designed and implemented the **LLM pipeline** to process natural language inputs, extract key entities, and generate valid Mermaid syntax. I followed good prompt engineering techniques to ensure high-quality outputs and reduce errors in diagram generation.

#### Fantasy Sports optimisation algorithm | Linear programming, XGBoost, PuLP, MLOps, Docker

- Engineered an **AI-driven optimization model** using XGBoost and linear programming (PuLP) to automate fantasy team selection, leveraging extensive research on player stats and game dynamics.
- Built a multi-constraint algorithm balancing budget, player roles, and recent form, achieving 32% higher accuracy than traditional rule-based systems.
- Led the team of 4 people for end-to-end development of **web scraping ESPN data**, preprocessing of data, Dockerising the application and deploying MLOps pipelines for scalable retraining.

### Fun with flags (Multiplayer Game) | Go, WebSockets

- Designed and developed a web-based multiplayer game with interactive challanges.
- Engineered a full-duplex WebSocket service with Golang for realtime game communication supporting up to 10 concurrent players in multiplayer mode and 10 rooms

# bittorrent client (CLI Tool) | Go, Concurrency patterns, Bittorrent, Unit Testing, Bencoding

- Created a lightweight software application to download large files using the BitTorrent protocol.
- A peer-to-peer (P2P) communication protocol for distributing large amounts of data over the internet.

## OTHER ACHIEVEMENTS

- $\bullet\,$  Earned the Leetcode Knight badge, ranking among the top 5% globally
- Top 15% in Kaggle CIBMTR Equity in post-HCT Survival Predictions competition (Rank 491/3278)
- Title Holder for Asia's Largest Painting on Recycled Paper Canvas. (Link here)

(Aug. 2021)

• 2-time National Level Rope Skipping Gold Medalist (Double unders & Spot jump)

(2016 - 2017)