

Rtamanyu N J

AI & DS Student (Amrita, IIT Madras) | Hackathon Winner

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About Me

A highly motivated and results-oriented second-year AI & Data Science student with a proven track record of innovation and success. Demonstrated expertise through winning the national-level Toycathon 2021, publishing mobile games, and actively participating in prestigious hackathons. Passionate about leveraging AI, machine learning, and software development to solve complex real-world problems.

Publications

Machine Learning Enhanced Dual Axis Solar Tracker for Optimized Energy Efficiency

[IEEE Xplore](#) - [Document 10988266](#)

Experience & Competitions

Mobile Game Developer

Self-Published | 2020 - 2021

Independently developed, designed, and published multiple games on mobile app stores, managing the entire project lifecycle from concept to launch.

Grand Prize Winner, Toycathon 2021

Organized by Government of India

Achieved first place in a national-level competition focused on innovation in toys and games, competing against thousands of teams.

Robotics Engineer, Amrita Rover Team

Amrita Vishwa Vidhyapeetham | Present

Contributing to the development of a competitive rover, utilizing Gazebo and ROS for simulation and control systems, with the goal of competing in the International Robot Competition 2026.

Hackathon Participant

2024 - 2025

- Novo Nordisk Hackathon (2025)
- NeurIPS - Open Polymer Prediction (2025)
- Google Agentic AI Hackathon (2025)
- Smart India Hackathon (2024)

Projects

Manga Translator: AI-powered web extension using **AI Agents** to automatically translate foreign language manga/comics to English in real-time.

Polymer Biodegradability Predictor: Developed an AI model using ML models (**Random Forest, SVM, Decision Trees, Gradient Boost**) to

Education

B.Tech (AI & DS) 
Amrita Vishwa Vidhyapeetham
2024 - 2028

BS (Data Science) 
Indian Institute of Technology, Madras
2024 - 2028

- JEE Mains: 96.8 Percentile
- JEE Advanced: Qualified

CBSE 12th Board



School of India
Score: 93.2%

ICSE 10th Board 
Podar International School
Score: 98.6%

Skills

Advanced

- C#
- Java
- Python
- SQL
- HTML
- CSS
- Management
- Leadership
- Unity
- Adobe Fusion
- Blender
- AR
- VR
- Data Visualization
- Game Dev

Intermediate

- C
- C++
- AI
- AI Agents
- NLP
- ML
- Neural Networks
- Gazebo
- ROS
- Unreal
- Gromacs
- Git
- Linux
- Flask
- Data Science
- TensorFlow
- Keras
- PyTorch
- OpenCV
- IOT

Beginner

- JavaScript
- TypeScript

classify polymers as biodegradable or not, contributing to sustainable materials research.

Protein-Protein Interaction (PPI) Strength Predictor: Created a **Fusion model (Autoencoder + Gradient Boost)** to accurately forecast the binding affinity and strength of protein interactions.

LSTM-Wavelet Model: Innovated on traditional **LSTM** architectures by integrating Wavelet properties to enhance time-series analysis capabilities.

Security & Cryptography Suite: Built a comprehensive **Java** application featuring a variety of security, steganography, and cryptography algorithms.

Gromacs Molecular Dynamics: Utilized **Gromacs** for simulating and analyzing molecular dynamics, focusing on biomolecular systems.

Reinforcement Learning Models: Implemented **RL** models for optimizing Thermal Energy Generators and creating a self-playing agent for the Flappy Bird game.

JumpShift (Assembly Game): Developed a complete game using the Nand2Tetris toolchain and **assembly language**.

My Portfolio: Developed a stunning website of my portfolio using **React** and **Three.js**.

AR/VR Projects: Created immersive experiences of Ancient Indian heroes using **Unity** in **AR** and **VR**.

Game Development: Designed and developed engaging **2D and 3D Games** and published in PlayStore.

React

Three.js

Node.js

Docker