Mahek Vanjani

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Jodhpur, Rajasthan, India

EDUCATION

IIT JODHPUR
B.Tech, Electrical and Electronics Engg.
Oct 2022 – Present | Jodhpur, Rajasthan
CGPA: 8.63 / 10

ST. ANSELM'S SR. SEC. SCHOOL
12th Grade, Science Stream
May 2022 | Abu Road, Rajasthan
96.6%

10th Grade
May 2020| Abu Road, Rajasthan
94.8%

LINKS

Github:// MahekVanjani611
LinkedIn:// MahekVanjani
Portfolio:// MahekVanjani

COURSEWORK

UNDERGRADUATE
Pattern Recognition and Machine Learning
Data Structures and Algorithms
Artificial Intelligence
Computer Architecture
Object oriented programming(OOPs)
Deep Learning
Software Development
Introduction to Computer Science
Operating Systems
Object-Oriented Design

SKILLS

SOFT SKILLS
Problem-Solving • Teamwork & Collaboration • Creativity • Management • Customer Experience • Product Strategy

TECHNICAL SKILLS
Languages:
C/C++ • Python • JavaScript • SQL • Verilog • MATLAB • HTML • CSS • Java
Technologies:
Unix/Linux • PyTorch • TensorFlow • Docker • Kubernetes • Git • React.js • Pandas • NumPy • Excel
Concepts:
Machine Learning • Natural Language Processing • Compiler Design • Neural Networks • Generative AI • Database Management Systems • Software Systems

EXPERIENCE

GIRLSCRIPT SUMMER OF CODE | Open Source Contributor
2025 - Present
- Contributing to multiple open-source projects under the program, focusing on feature development, bug fixes, and documentation.
- Collaborated with diverse teams via GitHub workflows in an Agile development environment, delivering 10+ pull requests with maintainable code.

NVIDIA | Software Engineer Intern
Summer 2025 | On-site

- Engineered performance optimizations in Linux device drivers for NVIDIA GPUs, applying object-oriented design principles and software systems expertise to resolve NVBug bottlenecks, eliminate FPS drops (up to 30%), and enhance user experience.
- Refactored a 32,000-node singly linked list into an unrolled list (block size 16), leveraging advanced data structures and algorithms to reduce pointer dereferences by 16×, cut cache misses by 94 % and lower traversal latency from 1.6 ms to 0.1 ms.
- Diagnosed and resolved a critical multithreading race condition, improving driver stability for 1000+ end-users.

EJY HEALTH | Generative AI Research Intern
2024 | Remote
- Developed AI-driven data visualization pipelines, improving data processing speed by 40% and user engagement by 50%.
- Built a multimodal AI prototype for speech + text processing improving customer experience and engagement.

PROJECTS | Selected Technical Projects

- **Efficient Computations on ML Accelerators** — Enhanced a Vision Transformer (ViT) model, reducing computation cycles from 7 to 3 via algorithm-level optimizations; deployed optimized RTL on Pynq-Z2 and Kintex-7 boards for large speedups.Github link
- **Chat E-Library Bot** — Built a RAG-powered chatbot (Hugging Face) to manage digital resources and improved query accuracy and UX in a fast paced environment; designed wireframes to streamline UI.Github link
- **Sentiment Classification (IIT Jodhpur)** — Performed EDA and built multiple NLP pipelines, achieving 84% accuracy using tuned Random Forest and logistic regression models. Github link

ACHIEVEMENTS

- Secured 5th Departmental Rank in the academic year [2023-2024] at IIT Jodhpur.
- Secured AIR 13002 in JEE Advanced 2022 among the 1.6 lakh shortlisted candidates.

EXTRACURRICULAR ACTIVITIES

PRODUCT CLUB, IIT JODHPUR | Head (Events)
2024 -- Present
ENTREPRENEURSHIP CLUB, IIT JODHPUR | Head
2023 -- 2024