Harjot Singh Raith

• Mumbai • Harjotraith04 in Harjot Singh Raith

Education

New Horizon School, Thane June 2015 - May 2020 Grade: 90.4%

Central Board of Secondary Education (CBSE)

Shubham Raje Junior College, Thane

Maharashtra State Board of Secondary and Higher Secondary Education, Science

Narsee Monjee Institude of Management and Studies, Navi Mumbai

B. Tech in Artificial Intelligence and Data Science

August 2022 - July 2026

June 2020 - May 2022

GPA: 3.23/4.0

Grade: 85.83%

Experience

eYantra Summer Intern at IIT Bombay Certificate 🗹

eRTS Lab, IIT Bombay

IIT Bombay, India May 2024 - July 2024

- Analyzed user interaction logs using Python, Google OCR for video log generation and CNN for bad quality videos.
- Collected and cleaned log data via Laravel website via an API to assess scaffold availability and dwell time of each scaffolds
- Applied visualization techniques and pattern recognition to analyze user behavior, optimize scaffolding, and enhance engagement using clustering, heatmaps, sequence analysis, and predictive modeling.

Publications

Enhancing and analyzing log generation for Collaborative Problem-Solving activities: Video analysis and OCR techniques

May 2024 – present

Suprabha Jadhav, *Harjot Singh Raith*, Parth Jain, Sridhar Iyer, Kavi Arya

(To be Published in Springer under Microsoft Compute 2024 hosted at IIT Gandhinagar)

Projects

Cryptofile-Secure File Encryption Web App

Github 1

- Developed a browser-based app for secure local file encryption and decryption using chunked AEAD stream encryption. Ensured privacy by enabling offline use with modern cryptographic algorithms.
- o Tools Used: NextJS, ReactJS, Libsodium Wrappers, PrismJS, Zxcvbn, Cypress, Dockerfile

Opportunet-A Job Search and Recruitment Platform

Github 🗹

- A platform connecting job seekers with employers. It provides feactures such as AI powered mock interviews, real time code editor and personalised courses for an intuitive job search experience
- o Tools Used: React, Tailwind CSS, Node.js, Express.js, MongoDB, Cloudinary, OpenAI API, ThreeJS, Groq, Socket.io

Github 🗹 Energyia Gym App

- An AI-powered fitness app that helps users maintain proper posture during exercise through real-time motion tracking. It uses OpenCV and MediaPipe to detect incorrect positions and provides feedback to reduce injury risk.
- Tools Used: Android Studio, OpenCV, MediaPipe, WebSocket, Firebase, Camera2 API, Vercel.

Technologies

Computer Skills: C, C++, Python, Linux (Ubuntu), Verilog, VHDL, R, MATLAB, AutoCad, Blender, ROS

Libraries and Framewoks: NLTK, SpaCy, Tensorflow, PyTorch, Scikit-learn, OpenCV, Mediapipe, WebSockets

Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, Probability and Statistics, Application Development, Computer Networking, DataBase Management System, Machine Learning, Cryptography and Network Security.

Online Courses and Certification

Cloud Computing: NPTEL Online Certification, IIT Kharagpur Certificate 🗹

Certificate 🗹 **SQL Fundamentals:** DataCamp Certificate 🗹 Power BI Job Simulation: PwC Switzerland, Forage

(ongoing) Competitive Programming Essentials, Master Algorithms: Coding Minutes, Udemy

Achievements

Certificate 🗹 Won Judges' Choice Award as one of the top 10 teams out of 299 at eYIC 2023-24 Finals, IIT Bombay.

Won 2nd place in the VOIS International Hackathon 2024 by Vodafone, held across India, Romania and Egypt Certificate 🗹

All Certificates 🗹 Competed in over 20 hackathons, securing 8 wins and numerous awards.

Position and Responsibility

Head of the Robotics Club, NMIMS Navi Mumbai

July 2024 - present

Core member of the Manthan Club, NMIMS Navi Mumbai

September 2022 - Jan 2023