Harustat Kaur

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Summary

A Computer Engineering student at Thapar University with CGPA:7.43 with expertise in full-stack development, machine learning, and cybersecurity. Proficient in C++, JavaScript, and SQL, with hands-on experience in Node.js, Express.js, and MongoDB. Developed AI-driven projects like CyberShield, ML-Based APT & DoS Attack Detection and VisionAid, CNN-based cataract detection model with 95% accuracy. Built Scatch, a scalable e-commerce backend with user authentication and product management.Dedicated to developing AI-driven solutions and actively participating in hackathons.

Education

Thapar University, Bachelor of Engineering in Computer Engineering — Sept 2022 – Present

- CGPA: 7.43
- **Coursework:** Data Structures & Algorithms, Operating Systems, Computer Networks, Database Management System, Software Engineering, Cyber Security, Machine Learning.

Sacred Heart Convent School, Senior Secondary School — Mar 2021 – Mar 2022

- Percentage: 89

Sacred Heart Convent School, Secondary School — Mar 2019 – Mar 2020

- Percentage: 89.6

Skills

Languages: C, C++, HTML/CSS, JavaScript, Python, R, SQL
Developer Tools: VS Code, Matlab, Git, Google Colab
Frameworks: Node.js, Express.js, Tailwind CSS
Libraries: Pandas, NumPy, Keras, Scikit-Learn, TensorFlow, OpenCV
Databases: MySQL, MongoDB

Projects

CyberShield: ML-Based APT & DoS Attack Detection (Present)

- Develop an ML system to detect, classify APT and DoS attacks and improve accuracy by 15%.
- Designing a novel ML algorithm to reduce false positives by 30% and Building a threat visualization dashboard.
- Tech Stack: Python, PyTorch, Scikit-Learn, React.js, Flask/Django, TensorFlow, Pandas, NumPy

VisionAid: AI-Powered Cataract Detection — GitHub

- Built a CNN model for binary classification of images into cataract and non-cataract categories.
- Achieved 95% validation accuracy by fine-tuning EfficientNetB0 with custom layers (80/20 train-test split).
- Tech Stack: Python, TensorFlow, Keras, EfficientNetB0

Scatch: E-commerce backend with Authentication and Product management — GitHub

- Developed a scalable backend for a shopping app, supporting 100+ users with 40% improved performance.
- Built with Node.js, Express.js, and MongoDB, featuring secure JWT/bcrypt authentication and optimized CRUD operations by 20% faster queries.
- Tech Stack: Node.js, Express.js, MongoDB, Postman

WebEase: No-Code CMS for Website Creation — GitHub

- Developed a featured content management system using MERN stack, reducing website creation time by 50%.
- Implemented authentication and role-based access, optimizing CRUD operations for 30% faster data retrieval.
- Tech Stack: Node.js, Express.js, MongoDB, Postman