

ANSH VIVEK MALHOTRA

— +91 7483954676 — ansh.vivekyog@gmail.com — Ansh Vivek Malhotra — ANSH — Portfolio

Education

National Institute Of Technology Karnataka
Bachelor of Technology in Computer Science and Engineering

Mangalore, Karnataka
Nov 2022 - Mar 2026

Experience

Frontend Developer Intern Virtual
Chaitanya Projects Consultancy Limited — Tech Stack - *React, Postman* *April 2025 - June 2025*

- Developed 12+ modular and responsive UI components for core ERP workflows, ensuring accessibility across desktop and mobile platforms.
- Integrated frontend with backend services by consuming RESTful APIs and managing data flows for seamless user experiences.
- Executed structured testing of 50+ API endpoints, resolving 15+ critical integration issues and improving overall system reliability.

Software Developer Intern **Bangalore, Karnataka**
Ergon Labs — Tech Stack - *Python, React, Firebase, MySQL, Grafana* *May 2025 - July 2025*

- Built a real-time monitoring application handling 5K+ daily data points, delivering dynamic dashboards with sub-second refresh rates.
- Engineered end-to-end data pipelines for reliable acquisition, storage, and real-time visualization of system metrics.
- Optimized database infrastructure by migrating MySQL to a new deployment, reducing query costs by 30% and enhancing long-term maintainability.

Projects

Online Coding Portal for Contests and Practice | *React, NextJS, TailwindCSS, Firebase* [GitHub](#)

- Engineered a full-stack coding platform enabling live contests, real-time code evaluation, leaderboard tracking, and a modular practice environment featuring authentication, session persistence, and performance analytics.
- Optimized system performance by enhancing frontend responsiveness and backend data flow to ensure low-latency grading and a seamless user experience.

Institutional Telephone Directory App | *Flutter, Dart, MySQL Database* [GitHub](#)

- Designed and deployed the official NITK telephone directory mobile app, achieving 1,000+ active installs and handling 10,000+ contact records across Android and iOS.
- Integrated a structured MySQL database to enable efficient cross-platform data storage, retrieval, and role-based access control.

Dynamic ARP Inspection | *Python, Wireshark* [GitHub](#)

- Implemented a prototype DAI system validating 100% of incoming ARP packets against MAC-IP mappings, blocking spoofed packets during test simulations with zero false positives.
- Demonstrated feasibility of lightweight ARP spoofing countermeasures for edge routers, with packet verification overhead kept under 5ms per request.

HCR (Handwritten Character Recognition) | *TensorFlow, OpenCV, Python, CNN* [GitHub](#)

- Built a real-time handwriting recognition system using CNNs and TensorFlow, integrated with OpenCV for live video capture and prediction.
- Performed data preprocessing, augmentation, and evaluation to enhance model accuracy and generalization; deployed an interactive Streamlit interface for live inference.

Technical Skills

Programming & Languages: C/C++, Python, Dart, MySQL, LaTeX.

Frameworks & Libraries: Flutter, React, Express, Node.js, TensorFlow, OpenCV, Socket.io.

Development Tools & Simulation: Git, GitHub, GitLab, Postman, Firebase, Grafana, NS3, Cisco Packet Tracer, Google Colab, Wireshark, Logisim, JFLAP.

Core Competencies: Data Preprocessing, Model Evaluation, Real-time Visualization, API Development, Statistical Reasoning, Optimization Concepts.

Activities and Achievements

- President, Indian Society for Technical Education – Mentored 200+ students; prior role: Tech Secretary.
- Vice President, Web Design and Public Relations – Student Energy NITK Chapter.
- Represented the CSE Department, NITK at the CREST NITK Conference.
- Examinations:** JEE Mains – Percentile: 99.72 (Rank: 2587); JEE Advanced – Rank: 17536