Harshil Malhotra

+91 6230931075 | work.harshilm@gmail.com | linkedin.com/in/harshilmalhotra | github.com/harshilmalhotra |
harshilmalhotra.dev

EDUCATION

SRM Institute of Science and Technology — Chennai, Tamil Nadu
Bachelor of Technology, Computer Science Engineering | CGPA: 9.76/10 — *May 2023 – May 2027*
Coursework: Data Structures and Algorithms, Operating Systems, Database Management Systems, Computer Networks, Machine Learning, Object-Oriented Programming, Agile Engineering Practices

PROFESSIONAL EXPERIENCE

Software Development Engineer Intern — June – July 2025
Bajaj Finserv Health Limited — *Pune*
- Designed and shipped a contactless health-screening Progressive Web Application from concept to release in 8 weeks; the solution was adopted into the live product suite, serving thousands of users without wearable devices.
- Built secure REST endpoints achieving sub-300ms response at the 95th percentile, aggregating and validating 25+ wellness markers — cardiovascular, metabolic, and stress indicators — to support real-time clinical decision workflows.
- Containerised microservices with Docker and deployed to Microsoft Azure via automated release pipelines, cutting manual deployment effort by an estimated 60% and strengthening release stability against service-level agreements.
- Translated experimental computer-vision models into fault-tolerant services by adding schema validation, structured error handling, and observability instrumentation — reducing unhandled failure rate to near zero in staging.

Artificial Intelligence and Machine Learning Intern — June – July 2024
Indian Institute of Technology, Mandi — *Himachal Pradesh*
- Developed an LSTM-Autoencoder architecture for industrial time-series fault detection, lifting the F1 score from 0.78 to 0.90 — a 15% accuracy gain — through disciplined feature engineering and frequency-domain noise filtering.
- Streamlined inference and pre-processing workflows for a high-volume dataset, decreasing latency by 20% and raising throughput by 40%, directly compressing the research feedback loop by several hours per iteration.

PROJECTS

Memvix – Intelligent Telegram Assistant | *PostgreSQL, Redis, FastAPI, Docker, Oracle Cloud, SQLAlchemy*
- Deployed a cloud-hosted assistant with natural-language and voice-based reminder scheduling, sustaining zero missed-reminder incidents across 3+ months of live usage through idempotent task execution.
- Engineered an asynchronous scheduling engine with retry logic, snooze support, and worker-crash recovery — handling daylight-saving edge cases and duplicate submissions without data loss.
- Live Demo   GitHub

FitSync – Artificial Intelligence Fitness Tracker | *MediaPipe, WebRTC, Node.js, Next.js, Supabase, Jest*
- Delivered real-time posture correction with sub-200ms feedback latency using MediaPipe and WebRTC; backend supports 500+ concurrent users with consistent response under load.
- Grew user retention by 20% via gamified leaderboards and challenge mechanics; enforced quality through Jest unit tests and automated continuous integration via GitHub Actions.
- Live Demo   GitHub

TECHNICAL SKILLS

Languages: Java, Python, C, C++, JavaScript, TypeScript
Core CS: Data Structures and Algorithms, Object-Oriented Programming, Operating Systems, Linux, SQL
Backend: Node.js, Express.js, FastAPI, Spring Boot, React.js, Next.js
Databases: PostgreSQL, MongoDB, Supabase, relational schema design, query optimisation
Cloud and DevOps: Docker, Kubernetes, GitHub Actions, Amazon Web Services, Microsoft Azure, Google Cloud Platform
Artificial Intelligence: TensorFlow, PyTorch, Scikit-learn, OpenCV, MediaPipe – computer vision, anomaly detection, predictive modelling
Practices: REST architecture, microservices, Agile/Scrum, application resiliency, code review, unit testing

CERTIFICATIONS

- **Microsoft Certified: Azure Developer Associate** – Microsoft

- **AWS Certified Solutions Architect – Associate** – Amazon Web Services

- **AWS Certified Cloud Practitioner** – Amazon Web Services

- **GitHub Foundations** — GitHub

- **Certified Agentforce Specialist** — Salesforce *(Credential)*

HACKATHON ACHIEVEMENTS

1st Place — Flex It Out Hackathon, Bajaj Finserv Health: Built a health-assessment solution selected for integration into the company's live platform.
1st Place — IntelliHack National Artificial Intelligence Hackathon: Ranked first among university teams nationwide for a high-accuracy predictive-modelling solution.
2nd Place — Hack of Duty, ACM SIGKDD Web3 Hackathon: Delivered a blockchain-based data-integrity application judged best in the decentralised category.
4th Place — ROBOROARZ 2025 International Robotics Hackathon, Singapore: Represented India in an international field, competing against university and industry teams from multiple countries.

LEADERSHIP

President   November 2025 – Present
ISD Research Laboratory, SRM Institute of Science and Technology
- Mentor 50+ undergraduates in computer vision, robotics, and embedded systems, structuring a project-based curriculum that bridges academic theory with industry-grade engineering practice.
- Oversee laboratory research direction, faculty collaboration, and resource allocation, maintaining an inclusive environment where students from diverse backgrounds contribute to competitive engineering challenges.

Joint Secretary   August 2025 – Present
Newton School Coding Club, SRM Institute of Science and Technology
- Govern a 100+ member technical community through year-round workshops, competitive programming sessions, and career development initiatives, expanding active membership by 35% within one academic year.
- Conceived and executed HackNova 3.0 and IdeaNova 2.0 — pan-India hackathons drawing participants from 40+ institutions — managing problem design, judge coordination, and sponsor relations end to finish.