HARYIANK KUMRA

+91 7986520232 ✉ haryiank@gmail.com linkedin.com/haryiank-kumra github.com/HaryiankKumra haryiank.me

EDUCATION

Thapar Institute of Engineering and Technology   2023 – 2027
Bachelor of Engineering in Computer Engineering, CGPA: 8.59   *Patiala, Punjab*

MVN School SEC-17   2023
CBSE Class XII, 91.60 percent   *Faridabad, Haryana*

DAV Public School SEC-49   2021
CBSE Class X, 97.20 percent   *Faridabad, Haryana*

TECHNICAL SKILLS

Programming Languages: C, C++, Python, JavaScript, TypeScript, HTML5, CSS3, SQL
Frameworks & Libraries: React.js, Next.js, Node.js, Express.js, TensorFlow, PyTorch, Bootstrap
Tools & Technologies: Git, GitHub, MongoDB, PostgreSQL, AWS, Vercel, Firebase, Docker, Linux
Core Competencies: Full-Stack Development, Machine Learning, Computer Vision, OCR, DSA

EXPERIENCE

Research Intern   June 2025 – August 2025
Thapar Institute of Engineering and Technology   *Patiala, Punjab*

- Designed and executed research on multimodal stress detection systems, analyzing data from 200+ subjects across 3 physiological sensors and achieving 15 percent improvement in detection accuracy
- Authored 2 technical research papers on emotion recognition systems and physiological signal analysis, currently under peer review at IEEE conferences with potential impact factor of 3.2+
- Optimized Vision Transformer and ResNet architectures on WESAD, FER-2013, and CK+ datasets, achieving 85 percent accuracy and reducing inference time by 30 percent through model compression techniques

PROJECTS

SafeSpace - Stress Detection System | *Next.js, Python, AWS, TensorFlow, PostgreSQL*   **Link**

- Architected comprehensive stress monitoring platform integrating 3 hardware sensors with ML models, processing 1,000+ data points in real-time
- Optimized Vision Transformer and ResNet models across 5 emotion recognition datasets, achieving 85% accuracy and reducing false positive rate by 25% compared to baseline CNN approaches
- Engineered responsive Next.js frontend deployed on Vercel with AWS Ubuntu Virtual Machine, handling 10,000+ concurrent requests and maintaining sub-200ms response times

Hospital Management System | *Next.js, Python, OCR, MongoDB, Express.js*   **Link**

- Built hospital management solution serving 5+ medical facilities, automating document digitization for 2,000+ patient records monthly and reducing manual data entry errors by 75%
- Enhanced OCR pipeline using Tesseract and custom preprocessing algorithms, achieving 95% accuracy on medical documents
- Established secure role-based authentication system supporting 8 user roles and RESTful APIs handling multiple daily requests, cutting administrative workload by 40%

Advanced Fintech Application | *React.js, Node.js, Chart.js, MongoDB, JWT*   **Link**

- Created personal finance platform with AI-powered expense categorization serving 800+ users, processing $2M+ in transaction data and increasing savings tracking accuracy by 25%
- Built real-time financial dashboards using Chart.js and D3.js, visualizing 20+ financial metrics with interactive drill-down capabilities and automated trend analysis
- Deployed JWT-based authentication and fraud detection algorithms analyzing 10,000+ transactions daily, reducing fraudulent activities by 35% and maintaining 99.8% security rating

LEADERSHIP EXPERIENCE

Indian Society for Technical Education (ISTE)   September 2023 – Present
External Secretary - Public Relations & Marketing   *Thapar Institute*

- Spearheaded external communications for 200+ member organization, increasing social media engagement by 150% and growing membership by 30% year-over-year
- Negotiated and secured 8 strategic MOUs with industry partners, generating INR 1.5+ lakhs in sponsorships and creating internship opportunities for 50+ students
- Coordinated 12 technical workshops on emerging technologies for 300+ participants, achieving 95% satisfaction rating

ACHIEVEMENTS

- **Winner, ACM Hackathon (2024)**: Led team of 5 to victory among 60+ competing teams with innovative stress detection solution, receiving 5,000 prize and mentorship from industry experts.
- **3rd Place, India-Israel International Hackathon (2025)**: Secured 3rd position among 100+ international teams, demonstrating excellence in cross-cultural collaboration and innovative technology solutions.
- **Technical Paper (Under Review, IEEE)**: Authored research on stress management leveraging physiological signals and deep learning, achieving **93% accuracy** in detection.

RELEVANT COURSEWORK

- Data Structures & Algorithms
- Machine Learning
- Artificial Intelligence
- Web Development
- Software Development
- Database Management Systems
- Computer Networks
- Operating Systems
- Object Oriented Programming