VARUN KUMAR

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ACADEMIC QUALIFICATIONS

Examination	Year	Board/University	CGPA / %
B.E – Computer Science and Engineering (Final Year Student)	2022 - Present	Thapar Institute of Engineering & Technology (TIET), Patiala	7.9 / 10
Senior Secondary	2022	BCM School, Ludhiana	91%
Secondary	2020	BCM School, Ludhiana	93%

INTERNSHIPS

ELC, Summer Internship at Thapar Institute of Engineering and Technology, Patiala (June 2024 – July 2024)

Responsibilities	1. Engineered SafeSpace, a native Android application in Kotlin designed for stress detection and management. 2. Integrated machine and deep learning models to enable emotion detection from images and a recommendation system using sentiment analysis. 3. Implemented sensor-based stress detection to provide users with personalized insights and support.
	Role: Android Developer, and Machine Learning Developer

KEY ACADEMIC PROJECTS

WayFinder: Capstone Project (Jan 2025 - Present)	1. Engineered an Android application that enables seamless AR-based navigation on campus, using ARCore and real-world coordinates. 2. Leveraged Google Maps with real-time, spatial mapping and navigation capabilities to guide users. 3. Latency: 50ms (Google Maps API), 2000ms (ArCore Model). 4. Google Play Store Deployment: Currently in Beta Testing phase. 5. Tools Used: Kotlin, Machine Learning, ArCore, Android Studio, Google Cloud Services
SafeSpace: Stress Detection and Management System (June 2024 - July 2024)	1. Developed a stress management application in Kotlin, utilizing machine learning and deep learning models for emotion and stress detection trained on 10,000+ facial emotion images. 2. Utilized OpenCV and NLP to analyze images and text, creating a data-driven recommendation system 3. Accuracy: 96.63%; Latency: 250ms (Face Recognition Model. 4. Tools Used: Kotlin, Machine Learning (Python), OpenCV, NLP
StudyBud (August 2025)	1. Developed a chat application inspired by Discord, enabling seamless real-time user interaction via Django's server-side framework. 2. Built with Django (Python) for backend architecture and using HTML, CSS, and JavaScript to deliver a responsive and intuitive frontend experience 3. Engineered essential features such as user authentication, CRUD operations for chat rooms or channels, and database integration (SQLite), simulating a collaborative and organized chat environment.

SKILLS

1. **Languages:** SQL, R, Kotlin, C++, C, Python, JavaScript, Java
2. **Tools & Libraries:** Android Studio, Git, Figma, IntelliJ Idea, VS Code
3. **Platforms & Services:** Jetpack Compose, Firebase, Django, Blender, ArCore, Google Cloud Services
4. **Soft Skills:** Leadership, Data Interpretation, Quantitative Analysis
5. **Career Interests**: Tech and Innovation, Finance, Consulting

EXTRA CURRICULAR

Achievements and Certifications	1. Deep Learning with PyTorch: Siamese Network, Coursera - Building and training Siamese Networks for similarity-based tasks like facial recognition and signature matching (February 2025). 2. Power BI, Coursera - Learned fundamentals of Power BI, including connecting data sources, building reports, and visualizing insights. (Jan 2025) 3. 36 Hours of HackOWasp 5 Hackathon (April 2023)