Varun Kumar

Ludhiana, Punjab | varunkumar2004.vk@gmail.com | 7626821592 | varunkumar-official (portfolio) | Linkedin
Github

Education

Thapar Institute of Engineering and Technology, Patiala Sept 2022 – Current

- GPA: 7.9/10.0
- **Coursework:** Computer Science and Engineering (CSE)

Experience

Software Engineer, ELC – TIET, Patiala June 2024 – July 2024

- Developed SafeSpace, a native Android application in Kotlin to assist users with stress detection and management
- Incorporated machine and deep learning models for emotion detection using images, and a recommendation system using sentiment analysis
- Integrated stress detection using sensors to provide personalized insights and support

Projects

SafeSpace: Stress Detection and Management System (Git Link) August 2024

- SafeSpace is a native Android application developed entirely in Kotlin to help users with stress detection and management which incorporates machine and deep learning models include emotion detection using images, recommendations system using sentiment analysis and stress detection using sensors.
- Tools Used: Kotlin, Machine Learning (Python), OpenCV, NLP

AR Campus Navigator (WayFinder) – Capstone Project (Git Link) August 2025

- An Android app that enables seamless AR-based navigation on campus, using ARCore and real-world coordinates relying on Google Maps. Designed specifically for students and visitors to intuitively find buildings, departments, labs, or facilities within the university campus using Augmented Reality overlays.
- Tools Used: Kotlin, Machine Learning, ArCore, Android Studio, Google Cloud Services

WeeklyWallet (Git Link) December 2024

- An android application for managing your weekly expenses and finances which automatically logs your expenditure represting you with a detailed view across the whole week.
- Tools Used: Kotlin, Google Room Library, Reactive and Coroutines Development

Technologies

Languages: Kotlin, C++, C, HTML/CSS, Python, R, SQL, SQL, JavaScript, Java

Tools: Android Studio, Git, Figma, IntelliJ Idea

Technologies: Android Development, Google Firebase, MongoDB, Google Cloud Services, Unity

Achievements and Certifications

Deep Learning with PyTorch: Siamese Network, Coursera - Building and training Siamese Networks for similarity-based tasks like facial recognition and signature matching February 2025

Deep Learning with PyTorch: Siamese Network, Coursera - Implemented bounding box regression techniques to detect and locate objects in images May 2025

36 Hours of HackOWasp 5 (Hackathon) April 2023