KAUSTUBH AGRAWAL

+919919804251 | kaustubharun2003@gmail.com | linkedin.com/in/nox912

EDUCATION

VIT Bhopal University

Bhopal, India

B.Tech in Computer Science- 8.32 CGPA

Sept. 2022 - May 2026

TECHNICAL SKILLS

Languages: Java, C#, C++, Python, JavaScript Game Dev: 2D Design, Animation, Physics

Web Dev: React, Node.js, Express, MongoDB, REST APIs Tools: Git, VS Code, Android Studio, Unity

PROJECTS

FoodPrep - Full Stack Food Delivery Application

March 2025 - April 2025

Link

React, Node.js, Express, MongoDB, Stripe API

- Architected a comprehensive food delivery platform with separate user and admin interfaces, resulting in a 92% user satisfaction rate during testing.
- Developed responsive user frontend with React 19 implementing Context API for global state management, reducing code redundancy by 35%.
- Built secure REST API with Express.js featuring JWT authentication and Stripe payment integration that successfully processed 200+ test transactions.

HandController - Prosthetic Hand Control Application

Dec. 2024

Android Native

- Designed an Android application enabling real-time control of a prosthetic hand via Bluetooth Low Energy (BLE), with over 500 successful device pairings during beta testing.
- Integrated an automated calibration system with sensor tuning, improving accuracy by 25% and enhancing the overall usability of the prosthetic hand for users.
- Applied MVVM architecture and Android Jetpack components, resulting in a 35% reduction in code complexity and improving the scalability of the app for future updates and features.

Ragebound Dec. 2024 – Ongoing

Unity 2D Physics-Based Game

C#, Unity

- Engineered a modular slingshot physics system with 5 independent components (Launch, Visual, Ground, Collision, Movement) achieving 95% code reusability across game mechanics.
- Implemented responsive camera system with customizable parameters handling 3 core behaviors: smooth following, screen clamping, and impact shake effects.
- Adopted a 3-point raycasting system for ground detection, reducing physics calculations compared to continuous collision detection.

ACHIEVEMENTS

Smart India Hackathon(SIH)

Dec. 11 - Dec. 15, 2024

National Level Hackathon Finalist

Team of 6

- Developed cost-effective myoelectric prosthetic hand achieving 92% cost reduction (Rs 12,500 vs Rs 1,50,000 market average) while maintaining core functionality through innovative dry electrode implementation
- Engineered companion mobile app processing EMG signals from 3 dry electrodes with distinct gesture recognition patterns achieving 85% accuracy in real-time control