

Khush Desai

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📍 Kolkata, India

EDUCATION

Bachelor of Technology in Computer Science and Business Systems (CSBS)

Netaji Subhash Engineering College, Kolkata

August 2021 - July 2025

- DGPA: 9.08
- Relevant Coursework: OOP, DSA, DBMS, AI ML, Business Strategy

St. James' School, Kolkata

January 2006 - July 2021

- ISC Class 12th Board (2021): 92.75%
- ICSE Class 10th Board (2019): 92.20%

EXPERIENCE

Web Development Intern

May 2023 - July 2023

CodeClause

- Designed and deployed a **responsive personal portfolio website** and a **unit conversion tool** using semantic **HTML5** and modular **CSS3**, adhering to modern web standards and UX principles.
- Engineered a full-stack **URL Shortener** application leveraging **JavaScript** for frontend interactivity and **MySQL** for backend data persistence, implementing CRUD operations for link management and ensuring database integrity through parameterized queries.

Software Engineering Intern

July 2022 - September 2022

Centre for Development of Advanced Computing, Kolkata

- Collaborated with the software engineering team to design and develop a web-based application for the **Raja Rammohan Roy Library Foundation**, under the **Ministry of Culture, Government of India**.
- Developed the **Book Assistance Scheme** module using **Struts-2 (MVC framework)**, **Java**, and **MySQL**, resulting in a **40% improvement in processing efficiency**.
- Engineered both the **relational database** and **user interface**, achieving a **60% reduction in manual data entry** and a **50% enhancement in report generation speed**.

PROJECTS

Nesthub - Academic Management Web Application

Web Application

Tech Stack: ReactJS, NodeJS, ExpressJS, MySQL

- Developed a mobile-responsive full-stack academic management system to streamline departmental workflows and automate attendance, scheduling, and reporting.
- Implemented **secure RESTful APIs** and a **4-tier role-based access control system** with **JWT** and **bcrypt**
- Designed interactive **dashboards with ChartJS** for real-time academic performance analytics
- Added **CSV import/export** and **email notification systems** to streamline data handling
- Ensured **horizontal scalability** and supported **multi-instance deployment** for efficient load distribution
- Deployed the system on the **College's Internal Network** and refined it through real-time stakeholder feedback

Sankalp – Blockchain-Powered Supply Chain Management System

SAP Hackfest 2025

Tech Stack: Solidity, ReactJS, Web3.js, Hardhat, SAP HANA

- Selected from **26,000+ participants (5,928 teams)** to the **Top 10 finalists nationwide**
- Won the **Special Award at the SAP Hackfest 2025 Grand Finale**
- Built a blockchain-based SCM ensuring **transparency, traceability, and accountability**
- Implemented **Ethereum smart contracts** with automated role-based access control
- Enabled **real-time product tracking** and **QR code-based verification** across supply chain
- Developed a **Web3 dashboard** for seamless interaction and **SAP HANA integration** for enterprise data sync

Albumify - Deep Learning-Based Facial Recognition App

Final Year Project

Tech Stack: Python, PyTorch, OpenCV, MTCNN, NumPy, scikit-image, Pandas, MERN

- Built a face clustering and recognition system for photo album organization using **PyTorch, OpenCV, and MTCNN**
- Designed an advanced **face preprocessing pipeline** (alignment, background removal, histogram equalization, normalization) to boost model performance
- Integrated **face detection & embedding extraction** with margin handling, bounding box refinement, and confidence scoring
- Implemented **batch processing & parallel extraction** with visualization and persistence via NumPy
- Automated album generation by clustering embeddings, integrated into a **web application**

Mediscript - Cross-Platform Medical Record Prescription App

Mobile Application

Tech Stack: React Native

- A cross-platform Android & iOS app using **React Native**, enabling doctors to securely log in, create profiles, and manage patient records.
- Implemented features for recording and searching patient **diagnoses and symptoms**, ensuring quick and efficient retrieval of complete medical history.
- Designed and integrated a **prescription generator**, allowing doctors to digitally create and share prescriptions with patients in real time.

Bioskope - Movie Database Mobile Application

Android Mobile Application

Tech Stack: Java, Android XML, Gradle

- Built a feature-rich Android application using **Java, XML layouts**, and the **TMDB REST API** to dynamically fetch and display the latest movie and tv show listings
- Implemented a **local database layer** to manage a personalized **Favorites** section
- Applied **RecyclerView with custom adapters** for efficient and dynamic UI rendering of movie lists

CERTIFICATIONS

- AWS Academy Cloud Foundations Course (AWS Academy)
- ReactJS and NodeJS Training (Academy of Skill Development)
- Android Studio Training (Engineer's Study Center)

July 2024
September 2023
November 2022

TECHNICAL SKILLS

- **Languages:** Java, JavaScript, Python
- **Library/Frameworks:** ReactJS, NodeJS, Gradle
- **Cloud/Database:** AWS, MySQL
- **Others:** Problem Solving, Project Management, Leadership, Adobe Photoshop, Figma

EXTRACURRICULAR ACTIVITIES/ACHIEVEMENTS

- **Hackathon:** SAP Hackfest 2025, Special Award Winner
- **Leadership:** Hult Prize 2025 Campus Director, NSEC
- **Committee:**
 - Institution's Innovation Council (IIC) Committee Member
 - IT Specialist, Graphics Design Head, Entrepreneurship Cell, NSEC
- **Competition:**
 - 2nd Runner up: Inovase 2022, B-Plan Competition, NSEC
 - Development of remote-controlled robotic car in Paridhi 2022 MSIT, Robotics
- **Publications:**
 - A New Era of Innovation, St. Xavier's College, Kolkata
 - How to Buy a Laptop, Medium
- **Hobbies:** Photography, Chess, Swimming

May 2025
March 2025

Last Updated: September 2025