

## Education

---

**Delhi Technological University**  
**Bachelor of Technology - Computer Science and Engineering**

*New Delhi | 08/2024 – 05/2028*

**DPS Vasant Kunj**  
High School and Middle School Diploma

*New Delhi | 2012-2024*

## Projects

---

### CarbonEye | Deforestation & ESG Reporting App

- Tech Stack: Flutter, Riverpod, FastAPI, Python, Sentinel Hub API, flutter\_map, pdf
  - Engineered a full-stack, cross-platform mobile app to provide real-time intelligence on global deforestation using satellite imagery.
  - Developed a Python/FastAPI backend to orchestrate analysis, process satellite imagery for vegetation changes (NDVI), and assess deforestation severity.
  - Implemented an interactive map with custom drawing tools for region selection, a personalized watchlist, and a tiered alerting system for detected events.
  - Integrated a professional PDF reporting feature for ESG analysis, enabling users to generate, print, and share detailed impact assessments.
- 

### Hand2Hand | Geo-Enabled Donation Coordination App

- Tech Stack: Flutter, Firebase (Firestore, Authentication), Google AI (Gemini API), geolocator, provider
  - Developed a community-driven mobile app to connect resource donors with the nearest NGOs, streamlining the donation of food, clothing, and medicine.
  - Architected a smart notification system that identifies the closest NGO using real-time location data and implements a fallback logic to automatically re-route declined requests.
  - Built the backend on Firebase, designing Firestore collections for users, donations, and notifications to ensure scalable and real-time data synchronization.
  - Integrated the Gemini API for intelligent assistance and designed separate, tailored user flows and dashboards for Volunteers and NGOs.
- 

### Color Harmony | Creative Suite & Accessibility Tool

- Tech Stack: Flutter, provider, shared\_preferences, palette\_generator, image\_picker, WCAG
- Developed a feature-rich creative tool for web and mobile, enabling users to generate, save, and export color palettes based on 6 different harmony algorithms.
- Engineered a professional accessibility checker to test color combinations against WCAG (AA/AAA) standards, providing real-time contrast ratio analysis.
- Implemented an image color extraction tool using the palette\_generator library and created a seamless pattern generator for design projects.
- Built multiple creative modules, including a digital drawing pad and an animated battle arena

where users' drawings compete.

## Skills

---

- **Programming:** Python, Dart, C/C++,Html, CSS
- **Frameworks/Tools:** Flutter, Firebase, PyQt5, Tkinter, OpenCV, PIL, StreamBuilder
- **Dev Tools:** VS Code, Homebrew, Git

## Profile

---

### Flutter Developer | Frontend , Backend & API Integration

Passionate Flutter developer with hands-on experience building many apps, including API-integrated projects with fully functioning backends.

Strong in UI/UX, state management, and Firebase. Proficient in handling REST APIs and responsive mobile applications.