

# Yash Kataria

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## EDUCATION

### Indian Institute of Technology Guwahati

Bachelor of Technology in Electronics and Communication Engineering

November 2021 - July 2025 (Expected)

CGPA: 7.23/10.0

## EXPERIENCE

### • Perpetuum Innovations Pvt. Ltd.

May 2024 - July 2024

Software Engineering Intern

Gurugram, IN

- Developed an **Admin Tool** for the **Spill app**, empowering the team to manage and oversee operations for **1000+** users.
- Improved operational efficiency and user support through the internal tool, facilitating better oversight and management.
- Implemented features to **blacklist/whitelist users**, manage invitations, **send notifications**, and handle content storage.
- Integrated a **caching mechanism** using **Cloudinary**, reducing the application's average response time from **1s** to **153ms**.

## PROJECTS

### • Techniche Website

November 2023 - August 2024

Techniche - The Annual Techno-Management Fest of IIT Guwahati

techniche.org

- Developed a robust and responsive website using **React.js** and **Node.js** to establish Techniche's online footprint.
- Designed and implemented an optimized **MySQL** data storage solution for handling event registrations from **300+** cities.
- Deployed the website on an **AWS EC2 instance** with ongoing vulnerability checks and cyberattack monitoring.
- Attracted **10k+** unique visitors and **800k+** views on the website **monthly** before the event with **zero downtime**.

### • Jotion - Cloud-Based Document Management

December 2023

Personal Project

jotion-yash.vercel.app | GitHub

- Built a rich content editor using **Next.js**, supporting dynamic **text and image content** for complex document creation.
- Integrated Clerk for secure authentication with **Google** and **GitHub**, utilizing Convex for real-time database operations.
- Implemented **nested notes** in a **tree-like structure**, **dynamic headings**, and options to **move to trash** or **delete permanently**.
- Enabled **one-click web publishing** of notes, allowing users to effortlessly share their work online.

### • Know Shop App - On Campus Order Hub

January 2023 - February 2023

Gold Medal Solution - Software PS Kriti 2023

know-shop-apk | GitHub

- Developed a **mobile application** that connects users with shops around the IITG campus, enabling **pre-ordering items**.
- Implemented separate customer and shopkeeper interfaces using **Flutter**, providing them a user-friendly experience.
- Integrated **live updates** and a **QR code verification** mechanism to enhance engagement and ensure reliability.
- Utilized **Firebase** for efficient backend data management, ensuring **real-time updates** and **secure data handling**.

### • Facial Recognition on an FPGA

January 2024 - April 2024

Prof. Gaurav Trivedi, Department of EEE, IIT Guwahati

Report | GitHub

- Implemented a facial recognition system with **ResNet-18** on a **Nexys A7100T FPGA**, improving real-time performance.
- Accelerated the **final layer CNN computations** with FPGA-based **parallel processing**, ensuring **reduced latency**.
- Integrated **UART** for data transfer between FPGA and external devices, and achieved **96% accuracy** on the test set.

## TECHNICAL SKILLS

**Programming languages:** C/C++, Python, JavaScript

**Web Development:** React.js, Next.js, Node.js

**App Development:** Flutter\*

**Database Management:** MySQL, MongoDB, ArangoDB

**Operating Systems:** Windows, Linux\*

**Miscellaneous:** Git, GitHub, AWS\*, Bash\*

\*Elementary proficiency

## ACHIEVEMENTS

- Kriti 2023:** Secured **1st position** among **13** hostels in the Software Development Problem Statement for Kapili Hostel.
- Codeforces:** Rated **Specialist** on the competitive programming platform with a max rating of **1452**. (Handle - *danklord786*)
- LeetCode:** Achieved a maximum contest rating of **1776** along with a daily streak of **300+ days**. (Handle - *yashkataria15*)
- Google Code Jam Farewell Round A 2023:** Secured **Global Rank 2387** among **8000+** participants.
- Joint Entrance Examination(Advanced) - 2021:** Ranked in the **top 10 percent** students out of **250k+** shortlisted students.

## RELEVANT COURSEWORK

**Computer Science:** Data Structures and Algorithms, Computer Networks, Introduction to Computing

**Machine Learning:** Pattern Recognition and Machine Learning, Recommendation System Design Using Deep Learning

**Mathematics:** Linear Algebra, Probability and Random Processes, Multivariable Calculus, Differential Equations

**Electronics:** Digital Circuits, Signals and Systems, Embedded Systems

## POSITIONS OF RESPONSIBILITY AND EXTRA CURRICULARS

### • WebOps Head, Techniche IIT Guwahati

November 2023 - September 2024

- Led a **three-tier** team of over **20** developers in ideating, implementing and managing web portals for **Techniche**.
- Led a team of **400+** volunteers to provide logistics and infra support for **50k+** visitors across **40+** events on campus.

### • Guwahati Half Marathon, India's largest student organized marathon

April 2024

- Organized the **14th edition** of the Guwahati Half Marathon aimed to raise public awareness for a **cleaner tomorrow**.
- Coordinated with **campus administration** and **local authorities** to provide a fluid experience to **4000+** participants.

### • Technothon, India's largest student organized logic-based examination

July 2024

- Revamped the prestigious **national level** high school aptitude based examination after a four year hiatus.
- Spearheaded the **development** of the web portal to ensure a frictionless examination experience for **15.1k+** students.