Yash Kataria

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 yashkataria.org

EDUCATION

Indian Institute of Technology Guwahati   November 2021 - July 2025 (Expected)
Bachelor of Technology in Electronics and Communication Engineering   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 **Spilll 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.in
  ○ 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	**Database Management:** MySQL, MongoDB, ArangoDB
Web Development: React.js, Next.js, Node.js	**Operating Systems:** Windows, Linux*
App Development: Flutter*	**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.

- **Technothlon,** 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.