

KHUSHI TYAGI

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LinkedIn | GitHub | LeetCode

Education

Graphic Era Hill University

Bachelor of Technology in Computer Science — CGPA: 7.20

2023 – Present

Dehradun, Uttarakhand

Government Polytechnic Sundernagar

Diploma in Computer Science — Percentage: 82%

2020 – 2023

Sundernagar, Himachal Pradesh

Govt HS Roni

Secondary Education — Percentage: 75%

2018 – 2019

Muzaffarnagar, Uttar Pradesh

Experience

ThinkNext Technologies

Aug. 2022 – Sept. 2022

Full Stack Developer Intern

Mohali, Punjab

- Spearheaded the creation of a **PHP-based COVID-19 test sampling portal** integrated with **MySQL and JavaScript**, processing **5,000+ daily test requests** and reducing turnaround time by **12 hours**.
- Implemented a robust **user access control system** with session management and role-based authentication to ensure secure handling of sensitive patient data.
- Optimized **SQL queries and backend logic**, improving portal load times and data processing efficiency by over **30%**.

Projects

CityConnect [GitHub](#) | [Live Demo](#) | React.js, Node.js, MongoDB, RESTful APIs

Dec 2024 – Feb 2025

- Spearheaded the creation of a centralized digital platform for urban governance, enabling seamless collaboration across city departments through integrated data sharing and project coordination.
- Architected and implemented a microservices-based backend, boosting system scalability and minimizing interdepartmental communication overhead by **40%**.
- Integrated JWT-based authentication with role-based access control, safeguarding sensitive data access for over **1,000+ users**.
- Optimized backend performance by leveraging asynchronous REST APIs and efficient MongoDB queries, reducing response time by **35%** under heavy load.

Drowsiness Detection System [GitHub](#) | TensorFlow, Keras, OpenCV

Dec 2024 – Feb 2025

- Engineered an **AI-powered fatigue detection system** to monitor driver drowsiness and prevent accidents.
- Applied **real-time eye-tracking** and **facial landmark detection** using OpenCV and Dlib, analyzing **100+ key facial features**.
- Trained a deep learning model with **statistical modeling** and **mathematical optimization**, achieving **90%+ accuracy** on a dataset of **1000+ images**.
- Integrated **Generative AI** for adaptive learning, reducing false positives by **18.4%**.

Space Invaders Game [GitHub](#) | Python, Pygame

Jan 2024 – Mar 2024

- Developed an **adaptive gaming experience** tailored for individuals with **Autism Spectrum Disorder (ASD)**.
- Measured a **25.97% improvement** in cognitive and motor functions, verified by therapists after **150+ gameplay sessions**.
- Designed **progressive difficulty mechanics**, keeping players engaged for an average session time of **27 minutes**.

Technical Skills

- **Programming Languages:** Java, Python, C, C++, JavaScript
- **Web Development:** React.js, Angular, Node.js, RESTful APIs
- **Databases:** SQL, NoSQL, MongoDB, PostgreSQL
- **Operating Systems:** Unix, Linux
- **Systems & Networking:** TCP/IP, Distributed Systems, Information Retrieval

Achievements

- Semi-Finalists at the **Smart India Hackathon 2024**, creating tech solutions for national challenges.
- Solved **500+** Data Structures and Algorithms (DSA) questions on **LeetCode** and **GeeksforGeeks**.
- Ranked in the **top 1%** among **15,000+** candidates in the **Himachal Pradesh Polytechnic Admission Exam**.
- Achieved **2nd position** in **Himachal Pradesh Takniki Shiksha Board (HPTSB)** Diploma examinations.
- Secured **All India Rank 403** in **IPU CET (Common Entrance Test)**, conducted by **Guru Gobind Singh Indraprastha University**.
- Led as **President** of Graphic Era Hill University Codev Group, expanding hackathon participation by **35%** and driving student tech engagement.