GURDEEP SINGH

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ABOUT ME

I'm a passionate CSE student with a genuine love for exploring and creating new things. I believe in learning by doing—getting my hands dirty and turning ideas into reality. Whether it's coding, building projects, or diving into the latest tech trends, I'm always eager to experiment and grow.

EDUCATION

Chandigarh University B. Tech in Computer Science

Jun 2022 - Present Current GPA: 7.23 / 10.0

Army Public School, CBSE Higher Secondary Education

Apr 2022 Percentage: 75%

TECHNICAL SKILLS

Languages: English, Punjabi, Hindi, C/C++, Python, Solidity, JavaScript, TypeScript, HTML/CSS, Shell

Tools & Platforms: CLI, Git/GitHub, VS Code, Unix Shell, Docker, SQL, NoSQL, AWS, Firebase, Adobe Photoshop

Blockchain Tools: Hardhat, Truffle, Ganache, Remix IDE, MetaMask, Chainlink, Alchemy

Web/Frameworks: React.js, Next.js, Node.js, Express.js, Vercel, Flask

AI & Automation: Machine Learning, Scikit-learn, TensorFlow, Automation Scripting, Bot Development

PROJECTS

SHL Assessment Recommendation Engine | Python, AI, React.js

April 2025

- ▶ Designed and developed an AI-powered recommendation engine to match candidates with tailored SHL assessments based on job roles, skills, and industry requirements.
- ▶ Implemented advanced machine learning algorithms and a modern UI/UX with an interactive dashboard for recruiters and hiring managers.
- ► Enabled data-driven, bias-reducing recruitment decisions, improving hiring efficiency and accuracy.
- ▶ Open-source project hosted on GitHub.

Automated Coding Problem Solver Bot | Python, Automation

Jan 2025 - Feb 2025

- ▶ Developed an automated bot to solve daily coding challenges on platforms like LeetCode, promoting fairness by distinguishing genuine practice from code copying.
- ▶ Improved **consistency and motivation** among learners by tracking problem-solving streaks and providing automated support.
- ► Focused on enhancing **coding skills development** through ethical automation and personalized assistance.

Custom Avalanche Subnet Deployment | Avalanche HyperSDK, Go

Oct 2024

- ▶ Launched a custom EVM-compatible subnet using Avalanche HyperSDK.
- ▶ Configured validator nodes and implemented subnet-specific logic using Go and chain configuration files.

NFT-Compatible Vault & Token Distribution | Avalanche, Solidity, IPFS

Jul 2024

- ▶ Developed a **decentralized vault contract** to securely store and manage **ERC-20 tokens**, enabling controlled withdrawals and access.
- ▶ Integrated NFT metadata and asset handling using IPFS, ensuring compatibility with decentralized marketplaces.

ERC-20 Token Ecosystem for DeFi | Solidity, Hardhat, Polygon/Avalanche Testnets

Jun 2024

- ► Created multiple **custom tokens** with **mint**, **burn**, and **transfer** functions to simulate DeFi protocols.
- ▶ Deployed on **Polygon Mumbai** and **Avalanche Fuji** testnets; tested interaction with **MetaMask** and frontend dApps.

Smart Banking Solutions on Blockchain | Solidity, Hardhat, Remix

Aug 2024

- ▶ Designed a decentralized **banking system** enabling users to securely **deposit**, **withdraw**, and **check balances**.
- ▶ Implemented custom error handling using **require**, **revert**, and **assert** to enhance contract robustness.

- ► Simulated a real-world **ATM interface** on blockchain allowing account creation, balance check, and controlled fund withdrawal.
- ▶ Optimized for gas efficiency and tested contract logic in local blockchain environments.

Blockchain-Based Academic Grading System | Solidity, Remix IDE

Aug 2024

- ▶ Built a grading system where **teachers assign and update scores** securely **on-chain**.
- ▶ Integrated **role-based access control** and enabled real-time grade retrieval for students.

Smart Lighting Automation using IoT | Arduino, Sensors, C++

Apr 2023

- ▶ Built a smart lighting system that detects human presence using IR sensors and Arduino.
- ▶ Reduced power consumption through motion-based switching logic.

Li-Fi Based Wireless Communication Prototype | Arduino, LED, LDR

Feb 2023

- ► Created a low-cost Li-Fi communication system to transmit data using visible light and photodiodes.
- ▶ Demonstrated **offline data transfer** and device-to-device signaling using light-based modulation.

EXPERIENCE

Blockchain Apprenticeship | Metacrafters

Jun 2024 - Nov 2024

► Completed a **4-module industrial training program** on **Ethereum** and Avalanche. Built and deployed **10 real-world decentralized applications**.

Active Member | Google Developer Student Clubs, Google Cloud

Oct 2022 - Present

► Keep on participating in university-wide tech events, workshops, and collaborative coding projects.

CERTIFICATIONS

Blockchain using Ethereum and Polygon | Metacrafters

► Successfully completed 10 projects; awarded scholarship for top performance in blockchain development.

Django for Web Development | Coursera

▶ Completed backend development, **REST API creation**, and deployment using Django.

Machine Learning | IIT Kharagpur (NPTEL)

▶ Studied **supervised** and unsupervised learning with hands-on **model building** in Python.

Blockchain A-Z: DApp Development | Infosys Springboard

► Gained expertise in **smart contract development** and decentralized application design.

CAMPUS INVOLVEMENT & EXTRA-CURRICULARS

Class Representative | Chandigarh University

2024 - 2025

Acted as the primary point of contact between faculty and students, coordinated academic discussions, and represented student concerns.

Member | Kalpana Chawla Centre, Chandigarh University

Mar 2023 - Present

▶ Contributed to research discussions, **innovation projects**, and participated in space science initiatives.

Student Volunteer | Art of Living Foundation

2023 - Present

► Actively participated in wellness and mindfulness programs; supported **event organization** and community service activities.

Student Coordinator | Discipline Team, Chandigarh University

2023 – Present

► Served as a student coordinator ensuring discipline and **event management** at major university events.

CO-CURRICULAR ACTIVITIES & ACHIEVEMENTS

Best Cadet, National Cadet Corps (NCC)

Nov 2020

▶ Awarded for excellence in discipline, **leadership**, and national spirit.

Winner, Inter-Class Science Exhibition (APS)

Aug 2019

▶ Won first place for presenting a novel, real-world science innovation using Li-Fi.