

YOGESH RANA

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PROFESSIONAL SUMMARY

Computer Science Engineering student with hands-on experience in building scalable systems, backend services, and cloud automation. Skilled in Python, AWS, REST API development, and full-stack engineering. Strong foundation in data structures, algorithms, and computer science fundamentals, with proven ability to ship production-ready features, optimize cloud costs, and automate infrastructure through impactful projects.

EDUCATION

Bachelor of Technology - Computer Science Engineering (Data Science Specialization) <i>Punjab Engineering College, Chandigarh, India</i> CGPA: 8.70/10	Aug 2023 - Present
Higher Secondary Education (Class 12) <i>Karnal International School, Karnal, Haryana, India</i> Percentage: 94.2%	2021 - 2022
Secondary Education (Class 10) <i>Dyal Singh Public School, Karnal, Haryana, India</i> Percentage: 96.6%	2019 - 2020

TECHNICAL SKILLS

Languages & Scripting: Python, C, C++, JavaScript, SQL, Shell Scripting, HTML/CSS

Core CS & Problem Solving: Data Structures & Algorithms, Operating Systems

Backend & Web Development: FastAPI, REST APIs, Bootstrap, Responsive Design

Cloud & DevOps: AWS (EC2, S3, Lambda, CloudFormation, CloudWatch), Docker, CI/CD (GitHub Actions), IaC

Databases: MySQL, SQLite

Software Engineering: Git/GitHub, Unit Testing (PyTest), Debugging, Agile, SDLC

PROJECTS

AWS EBS Stale Snapshot Cleaner

Python, AWS, Lambda, Boto3

GitHub link: github.com/Yogesh-rana-2301/boto3_learner

- Built an automated system to clean stale AWS EBS snapshots using Python and Boto3, reducing manual maintenance by 100%
- Optimized cloud storage usage across multiple AWS accounts, achieving 20–30% cost reduction
- Integrated CloudWatch Events for scheduled cleanup, enabling reliable, cross-region automation
- Demonstrates cloud expertise, backend automation, and scalable system design

CrowdMap – Real-Time Crowd Monitoring System

Python, OpenCV, Streamlit, OpenStreetMap

GitHub link: github.com/Yogesh-rana-2301/crowdmap

- Developed real-time crowd detection using YOLOv8, achieving 95% accuracy in people counting and density classification
- Built an interactive dashboard with OpenStreetMap integration, processing 30+ FPS video streams for live analysis and alerts
- Automated crowd counting and zone classification, reducing manual monitoring by 90% for public safety applications
- Demonstrates full-stack development, real-time data processing, and user-facing system design

Git-base – Git Version Control Implementation

Python, Git

GitHub link: github.com/Yogesh-rana-2301/git-base

- Developed a Python-based Git clone supporting 5+ core Git commands (init, add, commit, branch, checkout) with SHA-1 hashing and zlib compression
- Designed and implemented object-oriented data structures (Blob, Tree, Commit) to manage repository state efficiently
- Optimized commit processing, achieving 30% faster operations while maintaining reliability
- Highlights software engineering fundamentals, system-level problem-solving, and scalable backend design

CERTIFICATIONS

C++ Programming - Beginner to Advanced – Deep Dive in C++

Fully completed 27 sections on C++ programming, OOPs, STL, Features of C++11 and built projects such as **Banking system**