Shubham

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LinkedIn Github Leetcode Codechef

Education

Bennett University **2021 – 2025**
B.Tech in Computer Science and Engineering (Specialization: Data Science) *CGPA:* ***9.63***

Delhi Public School, Rohtak **2019 – 2020**
Class 12, Central Board of Secondary Education *Percentage:* ***91.66%***

Scholars Global School, Bahadurgarh **2016 – 2017**
Class 10, Central Board of Secondary Education *Percentage:* ***95%***

Experience

Samsung R&D Institute India, Delhi **Aug 2025 – Present**
Software Engineer Trainee

- Developing and enhancing **cloud-based services** for **Samsung TV+**, enabling seamless global delivery of live and on-demand video streams across TVs, mobiles, tablets, and Family Hub devices.
- Building **AI/ML-driven automation systems** to proactively detect playback issues (looping, subtitle sync, audio glitches, pixelization), minimizing manual QC dependency.
- Designing and implementing **scalable, fault-tolerant microservices** on **AWS (EC2, S3, Lambda, CloudWatch)** for real-time monitoring, automated content launches, and system benchmarking.
- Developing **data analytics solutions** (Python, Pandas, MySQL, Grafana) to generate actionable insights for streaming quality, user experience, and global performance optimization.

Siemens EDA **July 2024 – January 2025**
Software Engineer Intern

- Developed **CVE Checker Tool 4.0** using **Python, Django, and NVD APIs**, maintaining a local CVE database with **constant synchronization and updates** from NVD feeds for low-latency vulnerability lookups.
- Automated **patch verification and kernel repository analysis** pipelines, enabling accurate detection of unpatched Linux vulnerabilities and strengthening embedded software security.
- Automated **report generation** and Dockerized the tool for **scalable deployment** in Siemens EDA's security framework.

Projects

Image Forgery Detection System using CNN | *Python, TensorFlow, Keras, CASIA2 Dataset* | GitHub

- Developed a specialized lightweight CNN model for binary classification of authentic vs. forged images, achieving **94.2% accuracy** on the CASIA2 dataset.
- Research paper **presented and accepted at IEEE Madhya Pradesh Section Conference 2025.**

Adaptive Traffic Control System | *Python, YOLOv3, OpenCV* | GitHub

- Engineered an adaptive traffic signal model using **YOLOv3-based vehicle detection**, lane segmentation, and weighted density computation to dynamically optimize signal timings.
- Validated on real-world traffic datasets, achieving **90.8% detection accuracy** in optimized traffic flow; research published in **2024 4th (CISCT).** [**IEEE Xplore Link**].

Cab Booking and Management System | *Node.js, JavaScript, MySQL, Dijkstra's Algorithm, RESTful APIs* | GitHub

- Developed a real-time cab booking backend using **Node.js** and **RESTful APIs**, integrating **Dijkstra's algorithm** for efficient shortest-path and fare computation.
- Implemented **MySQL** as the relational data store, enabling driver assignment, route-based fare calculation, and dynamic booking operations with optimal latency.

Technical Skills

Languages & Frameworks: Python, C++, Java, Django
Backend & Systems: REST APIs, Object-Oriented Programming (OOP), System Design, Operating Systems, Linux/Windows Internals, Computer Networking, AI/ML, Data Science, Data Structures and Algorithms (C++)
Tools & DevOps: Git, Docker, Agile (Scrum), JIRA
Databases: MySQL, MongoDB
Soft Skills: Quick Learner, Problem Solving, Self-Motivated, Team Collaboration, Integrity, Adaptability

Certifications

- IBM Data Analyst Specialization - Coursera
- LAMP - Linux, Apache, MySQL, PHP in Easy Steps - Infosys Springboard
- Software Engineering: Software Design and Project Management - Coursera - 96.66%
- Introduction to High-Performance and Parallel Computing - Coursera - 98%

Achievements

- Top 4% of the class in B.Tech (CSE). **Dean's List Award for Academic Excellence**.
- Rated **5 star** HackerRank, **4 star** CodeChef (Rating: **1825**) (**shubham7711**).
- **Knight-rated** on LeetCode (Rating: **2017**); solved **500+** problems (**shubham_778**).
- O Grade in Artificial Intelligence and Machine Learning. A+ Grade in Computational Thinking and Programming, Design and Analysis of Algorithms, and Information Management Systems.