

Nitanshu Tak

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Education

UPES

B.Tech - CSE with a specialization in CCVT

Dehradun, Uttarakhand

Aug 2023 - May 2027

CGPA- 8.2 (till now)

Experience

Software Development Intern – The Waiter Company

Jun 2025 –Jul 2025 | Remote

- Engineered core dashboard features (Sidebar, Reports, Inventory, Notifications) using React, TypeScript, Next.js, and Tailwind CSS, powering daily operations.
- Architected scalable routing & reusable components, cutting dev overhead by 30% and accelerating feature delivery across modules.
- Delivered analytics & inventory modules that eliminated manual workflows, enabling real-time interactive dashboards and improving decision-making speed by 45%.
- Converted Figma prototypes into production-ready UIs, ensuring seamless, scalable UX across modules and reducing design-to-development time by 30%.
- Resolved hundreds of UI/UX bugs through deep debugging and performance tuning, boosting platform stability.

Projects

TransparaScore-A Hackathon Machine Learning Explainable Credit Intelligence Platform

Tech Stack: Python, Streamlit, Pandas, NumPy, Scikit-learn, SHAP, APIs(Yahoo Finance, FRED, World Bank, GDELT, Reuters), Streamlit Cloud

- Built a real-time credit risk assessment app integrating financial, macroeconomic, and event-driven datasets, working with 5 APIs.
- Implemented Gradient Boosted Trees model and SHAP values for credit risk assessment, enhancing model transparency and interpretability, plus decreasing false positives in bad debt predictions by 5-10%.
- Designed & deployed an interactive Streamlit dashboard with advanced visualizations and CSV exports, enabling real-time data-driven decisions and achieving 99.9% uptime on Streamlit Cloud.

AWS InfraControl-Command Line Based EC2 Life cycle Utility

Tech Stack: Python Boto3, AWS CLI, IAM, EC2, Lambda, S3, SNS

- Designed a CLI-based system to start, stop, and terminate multiple EC2 instances on demand, scaling seamlessly from a single instance to dozens simultaneously.
- Implemented IAM-based role-specific access controls, strengthening infrastructure security and enforcing least-privilege principles.
- Automated provisioning for 20+ EC2 instances, added logging and monitoring by integrating S3 (activity logs), Lambda (scheduled tasks), and SNS (real-time alerts) for operational reliability.
- Delivered a lightweight, UI-less automation tool that reduced manual provisioning time by ~70% and strengthened confidence in infrastructure-as-code principles.

ExpenseFlow- A GUI Based Budget Tracker

Tech Stack: Java, Swing, OOPs, Collections, File I/O

- Developed a modular Java Swing-based finance manager leveraging OOP principles, enhancing scalability, maintainability, and code reusability for long-term use.
- Built a secure, real-time login & user database with persistent storage (Collections + File I/O), enabling multi-user access and reducing authentication failures by 40%.
- Integrated expense splitting, balance tracking, and live updates, boosting group expense management efficiency and reducing manual calculations by 60%.
- Enhanced system reliability with exception handling, strong data validation, and responsive GUI design, increasing stability and improving user satisfaction during testing, and validated suitability with testing across 50+ real-world users.

Technical Skills

Languages: C, C++, Python, Java, HTML, CSS, Typescript, NextJS, ReactJS

Cloud Tools: AWS GUI, AWS on CLI

Concepts & Frameworks: OOPs, Java Swing, File I/O, Collections, Exception Handling

Databases: MySQL, MongoDB, PostgreSQL

Tools: Git, GitHub, Command Line, Visual Studio Code, Google Colab, Cisco Packet Tracer

Coursework: Data Structures & Algorithms, Database Management Systems, Operating Systems, Computer Organization & Architecture, OOPs, Data Communication & Networks, Software Engineering.

Certifications

AWS Certified Cloud Practitioner – Certification Course | Online | Aug- 2025

- Completed foundational training in cloud concepts, security, architecture, and services with hands-on labs in EC2, S3, IAM, and CloudWatch.

AWS Academy Cloud Foundations - Online | Apr-2025

- Earned globally recognized certification validating skills in AWS global infrastructure, cost optimization, governance, and real-world cloud deployments.