Nitanshu Tak

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Introduction

Third-year BTech CSE student specializing in **Cloud Computing and Virtualization Technology,** with practical experience in **frontend development and cloud infrastructure**. Recently completed an industry internship building production-grade dashboards using **React, TypeScript, and Next.js**. Passionate about integrating cloud automation with **real-world systems**, while also **exploring AI/ML and Data Science**. Actively developing a strong technical foundation through hands-on projects, internships, and consistent skill-building.

Education

University of Petroleum and Energy Studies (UPES)	Dehradun, Uttarakhand
BTech – Computer Science & Engineering (Cloud Computing and Virtualization Technology)	August 2023 - May 2027

Experience

Software Development Intern – The Waiter Company
June–July(2025) | Remote

- Built major **frontend components and pages** for an internal dashboard using **React, TypeScript, and Next.js.**
- Designed reusable components like Sidebar, Navbar, and dynamic pages using **Tailwind CSS and modular architecture**.
- Collaborated in **Agile sprints** and contributed to **UI bug fixes** and **performance optimization**.
- Implemented **API integration, routing, and state management** in real-world projects.

Certifications

Amazon Web Services (**AWS**) - online [April-2025]

- Completed the **AWS Academy program**, gaining foundational knowledge in **cloud computing and AWS services**.
- Successfully demonstrated the ability to **design, deploy, and manage AWS solutions**, preparing for real-world cloud applications.

Projects

AWS InfraControl:Command-LineBasedEC2LifecycleUtility
Tech Stack: Python Boto3, AWS CLI, IAM, EC2, Lambda, S3, SNS

- *Designed and deployed a**terminal-based system**to control **AWSEC2 instances**—start, stop, and terminate—entirely through the **command line**.*
- *Used **IAM** for **secure access control**, **S3** for logging instance activity ,and **Lambda to automate** periodic tasks.*
- ***SNS** was integrated to send alerts on key events. The project was built as part of a cloud computing module to get hands-*
- *on experience with real-world **AWS workflows**.*
- *It helped build confidence in **infrastructure management and cloud automation using minimal UI**.*

ExpenseFlow: A GUI-Based Budget Tracker
Tech Stack: Java, Swing, OOPs, Collections, File I/O

- *Built a desktop**application**to manage personal finances with a **Swing GUI**.*
- *Applied **OOP principles** (inheritance, polymorphism, encapsulation, abstraction) for clean, modular code.*
- *Used **Collections** for efficient **data handling** and **File I/O** for persistent data storage.*
- *Implemented **multithreading to handle concurrent user** inputs and processes.*
- *Integrated features like expense splitting and real-time balance updates.*
- *Strengthened skills in **GUI design, exception handling, and real-time data management**.*

Technical Skills

Languages: C, C++, Python, Java, HTML, CSS
Cloud Tools: AWS (EC2, IAM, Lambda, S3, SNS, CloudWatch), AWS CLI
Concepts & Frameworks: OOPs, Java Swing, File I/O, Collections, Exception Handling
Databases: SQL, MongoDB
Tools: Git, GitHub, Command Line, VS Code, Google Colab, Cisco Packet Tracer

Coursework

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