

SHIVAM THAPLIYAL

Dehradun, Uttarakhand

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Education

University of Petroleum and Energy Studies

2022 – 2026

Bachelor of Technology in Computer Science and Engineering

Uttarakhand

Coursework

- Data Structures & Algorithms
- Computer Networks
- Object-Oriented Programming
- Operating Systems
- Database Management Systems
- Web-Dev, Cloud & Devops

Experience

Software Development Intern

Apr 2025 – Present

Oyelabs – Node.js Backend Developer

Remote

- Engineered comprehensive SaaS application for call centers with Stripe and Razorpay payment integration.
- Streamlined agent workflows using BullMQ job queues and Twilio services reducing manual operations by 60%.
- Architected scalable RESTful APIs with Express.js framework and PostgreSQL database with 99.9% uptime.

Cloud Engineering Intern

June 2025 – July 2025

IBM – Cloud Intern

Remote

- Designed robust patient tracking system enhancing data retrieval speed by 42% and managing 1000+ medical records efficiently.
- Deployed Amazon S3 cloud storage with Multer-S3 middleware for direct uploads reducing storage costs by 11%.
- Configured Redis caching for rate limiting and MySQL RDS for database management ensuring optimal API reliability and 99.99% system availability performance.

Projects

AI Quiz System (RAG) ↗ | LangChain, FAISS, OpenAI, Python, FastAPI, React

Jan 2025 - Feb 2025

- Created AI-powered quiz generator using Retrieval-Augmented Generation to produce contextual questions from PDF documents with 95% accuracy.
- Leveraged vector database with FAISS and LangChain framework for efficient document processing and semantic search capabilities.
- Constructed full-stack solution with FastAPI backend services and React frontend interface achieving optimal user experience.

E-Learning Platform ↗ | React.js, Express.js, MongoDB, Razorpay, JWT, AWS

Oct 2024 - Nov 2024

- Established comprehensive MERN platform with secure authentication, course management, and payment integration leveraging AWS infrastructure.
- Integrated AWS S3 for multimedia storage with CloudFront CDN for global content delivery reducing content delivery latency by 65%.
- Executed automated email notification system using Nodemailer with Route 53 DNS management and ACM SSL certificates ensuring secure HTTPS communication.

Technical Skills

- **Languages:** C++, Java, Python, JavaScript
- **Frontend:** HTML, CSS, Tailwind CSS, React.js
- **Backend:** Node.js, Express.js, FastAPI
- **Databases:** MongoDB, MySQL, PostgreSQL, Redis
- **Cloud & DevOps:** AWS, Docker, Kubernetes, GitHub Actions, Terraform, Ansible
- **AI/ML:** LangChain, Hugging Face, OpenAI API

Certifications & Extracurricular

- CSI Technical Member: Facilitated C++ workshops for 40+ students, coordinated coding sessions.
- Collaborated on inter-university event website achieving 300+ registrations.
- Full-Stack Web Development (4.5 months) – CodeHelp 22/08/2025.
- C++ Programming – Udemy 11/03/2023.