Vaibhav Sharma

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SUMMARY

Final-year Dual Degree student at BITS Pilani (BE Chemical, MSc Mathematics) with experience as an SDE intern across fintech, NRI wealth management and voice-AI products. Strong in Python, Java, Django, SQL and machine learning workflows, with hands-on work in RESTful APIs, backend services, and production-ready integrations with third-party platforms. Interested in software engineering, backend systems, and applied ML.

EDUCATION

Birla Institute of Technology and Science, Pilani — Oct. 2021 – May 2026
Bachelor of Engineering in Chemical; MSc in Mathematics (Dual Degree) — *Pilani, India*

Shiv Jyoti Sr. Secondary School — Aug. 2019 – May 2021
CBSE XII — *Kota, Rajasthan, India*

EXPERIENCE

SDE Intern — June 2025 – Present
Rupeeflo – NRI Wealth Management App — *Bengaluru, India*
- Designed and implemented end-to-end deep-link architecture for notarization journeys with Kotak, ICICI and HSBC, enabling secure document workflows for NRI customers.
- Contributed to a new stocks buy/sell product for NRI investments by implementing backend flows, input validation and error handling around trading journeys.
- Integrated third-party services such as VideoSDK, Branch.io and PandaDoc into the core app to support video KYC, deep links and e-signature workflows.

SDE Intern — February 2025 – June 2025
Bachatt — *New Delhi, India*
- Developed and maintained RESTful API flows for mandates and transactions, improving reliability of payment and collection flows.
- Built three backend services end-to-end (User Profile, Auth and Mandate), including routing, request validation, logging and basic access control.
- Created the product website and collaborated with stakeholders to ensure a responsive and production-ready user interface.

Research Intern — January 2023 – November 2023
Dubverse — *Remote / Gurugram, India*
- Worked on retrieval-based voice cloning models for multilingual video dubbing and personalized voice generation.
- Implemented components for speaker recommendation in multi-speaker video dubbing, cross-lingual voice cloning and pipeline experimentation.
- Scaled and optimized models to 4 new languages by training on 200+ hours of speech data on Google Cloud Platform (GCP).
- Contributed to engineering and validation around OpenAI Whisper-based pipelines for robust speech-to-text and alignment.

Software Developer Intern — June 2023 – July 2023
Indian Red Cross Society — *Bhopal, India*
- Developed a registration portal using Python and Django to streamline volunteer and participant onboarding.
- Created the organization website using JavaScript and MongoDB to present information and initiatives.
- Built an internal API for organizational use, enabling structured access to internal records and forms.

Projects

Viral Reel Generator in 40 Seconds | *Django, ElevenLabs, OpenAI APIs*   July 2024 – Present
- Built a pipeline that converts any article or topic into short, engaging infotainment reels in under a minute.
- Used ElevenLabs and OpenAI models to generate dialogue-style scripts between popular characters and create high-quality voiceovers.
- Implemented an end-to-end workflow in Django including text ingestion, script generation and audio rendering.

Forest Fire Detector | *Python, TensorFlow, Keras, PostgreSQL*   June 2024 – Present
- Developed an early forest fire detection system using satellite imagery to identify high-risk regions.
- Employed Conv2D layers for spatial feature extraction and RNNs for temporal pattern recognition in satellite sequences.
- Used PostgreSQL for efficient storage and retrieval of processed imagery and prediction outputs.

Awards & Recognitions

Amazon ML Challenge 2025 – AIR Top 10 (PPI for Amazon AS Intern role)   Oct. 2025
- Finished in the Top 10 out of 85,000+ participants across all backgrounds.

American Express Product and Decision Track – Finalist   June 2024 – June 2025
- Selected as a finalist among top engineering students and early-career talent across India.

Best Use of Technology – Voice AI Hackathon (Together Fund)   Aug. 2025
- Created an end-to-end pipeline for viral reel creation in around 50 seconds using voice-AI tools.

Code Ed Hackathon (UpGrad) – Finalist   Sep. 2025
- Built flashcard, quiz and video content generation tools for educational use cases.

Energy Quest – AIR 4 (AIR 1 in Chemical Specialisation)   Aug. 2024
- Achieved All India Rank 4 across all engineering domains and National Winner in Chemical specialisation (HPCL-HMEL).

Amazon ML Challenge 2024 – AIR 48 (PPI for Amazon AS Intern role)   Sep. 2024
- Finished at AIR 48 out of 75,000+ participants from diverse backgrounds.

Technical Skills

Programming Languages: Python, Java, SQL (PostgreSQL)
Backend & Frameworks: Django, Spring Boot, Hibernate
ML & Data: TensorFlow, Keras, NumPy, pandas, Matplotlib, traditional ML libraries
Databases: PostgreSQL, MongoDB
Tools & Platforms: Git, Linux, Google Cloud Platform (GCP), VS Code
Concepts: Data Structures and Algorithms, Object-Oriented Programming (OOP), RESTful APIs, Relational Databases, basic System Design