

# Pratham Tomar

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**Leetcode** - [https://leetcode.com/u/\\_pratham9914/](https://leetcode.com/u/_pratham9914/)

**Software Engineer and Learner**

**Address:** Pune, Maharastra - 411037

## SUMMARY

Third-year B.Tech Information Technology student at VIT Pune (CGPA: 9.19) and Incoming Summer Intern at Barclays. Recognized for early-career excellence by securing a 2nd-year internship offer at a global financial institution. LeetCode Knight (Rating ~1900) with deep expertise in C++, Java, and Spring Boot. Focused on building scalable backend systems and custom AI/ML implementations. Active member of IEEE students Branch VIT Pune.

## EDUCATION

**Vishwakarma Institute of Technology**

Information Technology

CGPA: **9.19**

**Kendriya Vidyalaya No.2 AFS Pune**

CBSE (12th)

Percentage: **92%**

Pune

2023-2027

Pune

2021-2023

## SKILLS

- Languages: C++, Java, Python, SQL.
- Frameworks & Libraries: Spring Boot, SFML, OpenCV, NLP.
- Developer Tools: Docker, Git, GitHub, Visual Studio, Google Colab, Jupyter Notebooks.
- Databases: MySQL, MongoDB.

## PROJECTS

### URL Shortening Full-Stack Project | Spring Boot, Java, MySQL :

- Developed a full-stack URL shortening application using Spring Boot with a responsive frontend.
- Built RESTful APIs for generating short URLs, handling redirects, and managing link analytics.
- Implemented hash-based encoding with collision handling for efficient, unique URL mapping.
- Integrated secure token-based access and user authentication for managing links.
- Designed a dashboard to view usage statistics, emphasizing system efficiency and scalability.

### Flappy Bird AI | C++, SFML, Neural Networks :

- Developed a Flappy Bird game in C++ using the SFML library.
- Designed and implemented a neural network from scratch without external ML frameworks.
- Enabled autonomous gameplay where the bird learns to control movement based on game state inputs.
- Implemented core mechanics including physics, collision detection, and real-time rendering.

### YouTube Video Summarizer & Translator | Python, NLP :

- Developed a browser extension that automatically generates concise video summaries using NLP.
- Implemented real-time audio translation to convert spoken content into multiple languages.
- Designed the system to handle efficient audio processing and language translation.
- Focused on performance optimization for seamless user experience across different video lengths.

## CERTIFICATIONS

- Contribution in Industrial Project with ISA
- OpenCV
- Introduction to Data Science by **CommonWealth Bank**