

# Kartikey Pandey

+917309885644 | [pkartikey5757@gmail.com](mailto:pkartikey5757@gmail.com) | [linkedin.com/in/CoderKP](https://linkedin.com/in/CoderKP) | [github.com/Coder-Kartikey](https://github.com/Coder-Kartikey) | [CoderKP.me](https://CoderKP.me)

## SKILLS

**Languages:** Python, C/C++, JavaScript, Typescript, SQL (MySQL)  
**Frontend:** React.js, Tailwind CSS, Material-UI, Bootstrap, EJS  
**Backend:** Node.js, Express.js, FastAPI, LangChain, RESTful APIs, MVC Pattern  
**AI/ML:** Generative AI, TensorFlow, OpenCV, Keras, NumPy  
**Database:** MongoDB, MySQL  
**Tools & Platforms:** Git, npm, Vercel, Render, Streamlit, Postman, Cloudinary

## PROJECTS

### Insight Engine | RAG Pipeline API

July 2025

Hosted: **Website** Source Code: **GitHub**

- Engineered a high-performance **RAG API** using **FastAPI** and **LangChain** to answer questions from large documents achieving **high retrieval accuracy** and average response time of **<1200ms** during testing.
- Implemented an advanced **fusion retrieval system** combining **keyword (BM25)** and **vector (Faiss)** search to **optimize accuracy**.
- Built a robust backend capable of passing Level 4 competitive performance benchmarks in the Bajaj Finserv HackRx 6.0 hackathon.

### InvisiData | Python-based Steganography Tool

June 2025

Hosted: **Website** Source Code: **GitHub**

- Developed a **full-stack** web application with a **React + TypeScript** frontend and a **Flask** backend to hide and reveal secret messages in images.
- Implemented the **Least Significant Bit (LSB)** algorithm in Python to manipulate image data at the **binary level** via a **RESTful API**.
- Engineered a robust end-of-message delimiter to ensure **clean and accurate data extraction** from the images.

### Warden AI | CNN-Based Forest Fire Detection using Deep Learning

April 2025

Source Code: **GitHub**, **Colab**.

- Developed and trained a custom **Convolutional Neural Network (CNN)** with **TensorFlow** and **Keras** to detect forest fires from aerial imagery with **high accuracy**.
- Preprocessed and augmented a dataset of over **750 images** using **OpenCV** to enhance model robustness and generalization.
- Achieved **89% accuracy** on the validation set, demonstrating a strong practical application of computer vision for disaster management.

## EXPERIENCE

### Cyber Security Intern

January 2025 – February 2025

*IBM SkillsBuild*

- Identified **5+** critical security flaws in simulated enterprise applications, including **SQL injection** and **Cross-Site Scripting (XSS)** vulnerabilities.
- Designed and presented a comprehensive threat model for a new application feature, proposing **3 key security controls** to mitigate potential risks.

### Open Source Contributor

May 2024 – August 2024

*GirlScript Summer of Code*

- Authored and shipped a major optimization that reduced application page load time by a measurable **75%**.

## EDUCATION

### REC Pratapgarh

Pratapgarh, India

*B.Tech. in Computer Science and Engineering*

*2023 – 2027*

## ACHIEVEMENTS & CERTIFICATIONS

### Finalist, Reverse CodingX Competition | IIT Madras

January 2025

- Achieved a **finalist** ranking out of **1,841 national participants**, showcasing skills in **reverse-engineering** code and deducing complex logic under competitive pressure.

### Tata Cybersecurity Analyst Job Simulation | Forage

February 2025

- Completed a 5-module job simulation covering enterprise-level security, including vulnerability analysis.