Taranpreet Singh

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PROFESSIONAL SUMMARY

Entry-level Python backend developer specializing in secure, scalable REST APIs using Django and FastAPI. Experienced in building authentication-driven backend systems with PostgreSQL/MySQL, JWT-based security, and production-ready API design. Developed an ML-enhanced password security API trained on real-world leaked password datasets.

TECHNICAL SKILLS

Languages: Python

Backend Frameworks: Django, Django REST Framework (DRF), FastAPI, Flask

Databases: PostgreSQL, MySQL, MongoDB

API & Security: REST APIs, JWT Authentication, OAuth2, bcrypt, OWASP Top 10

Tools & DevOps: AWS, Docker, GitHub Actions, CI/CD

Data & ML: Scikit-learn, Pandas, NumPy

PROJECTS

ML-Enhanced Password Security API   2025
ML-Powered Backend API   *FastAPI, Scikit-learn*
- Built FastAPI-based backend API to classify password strength using a Random Forest model trained on 50,000+ leaked passwords
- Designed secure endpoints combining regex rules, entropy analysis, and ML predictions to reduce weak password acceptance

Secure Blog Platform API   2025
Secure Backend API Project   *DRF, PostgreSQL, JWT*
- Developed RESTful CRUD APIs with role-based authentication and nested resources
- Implemented bcrypt hashing, SQLi protection, and XSS-safe request handling following OWASP guidelines

Password Strength Checker   2024
Password Security Tool   *Python, Streamlit*
- Built interactive password strength tool using regex-based rules to educate users on secure password practices

EXPERIENCE

Python Developer Intern   Mar 2025 – Jul 2025
Webpaint Technology Pvt Ltd   *Chandigarh, India*
- Developed 6–10 backend modules using Django and FastAPI for production applications
- Built 12+ secure REST APIs with JWT authentication and input validation
- Optimized SQL queries and reduced API response time by 15–30%
- Designed scalable backend services with structured validation, error handling, and security-focused architecture

EDUCATION

B.Sc. (Hons) Artificial Intelligence & Data Science | SGTB Khalsa College | CGPA: 7.63 | 2024

CERTIFICATIONS

Python Programming (GUVI) | Windows Forensic Analysis (CDAC)