

Abhinav Singh

Backend & AI Systems Engineer

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EDUCATION

Lovely Professional University
Bachelor of Technology in Computer Science

Jalandhar, Punjab
Expected 2027

PROJECTS

Veyra – Discord RPG Platform Mar 2025 – Present

Python, FastAPI, SQLAlchemy, PostgreSQL, Discord API

- Built live Discord RPG platform managed across multiple servers with 100+ registered users and thousands of gameplay commands
- Owns core backend systems for economy, inventory, quests, marketplace, PvP/PvE combat, casino, crafting, AI chat, and REST APIs
- Refactored combat into registry-driven weapons, spells, arenas, NPC AI, round handlers, battle sessions, and settlement services
- Designed transaction-aware flows for wagers, rewards, quest progress, win streaks, marketplace escrow, and atomic inventory transfers
- Verified battle architecture with 90 passing repo-root unit tests

Image Block – Async Discord Moderation Platform 2026

Python, Pycord, PostgreSQL, Cloudflare R2, OpenCV, Pillow

- Built image moderation bot adopted by a 10k+ member Discord server to reduce image spam and banned-image reposts
- Blocked 100% of configured banned images using SHA-256 exact matching, pHash/dHash similarity checks, ORB matching, and confidence scoring
- Designed async scan queue to inspect uploaded images within seconds while keeping Discord event handling responsive
- Modeled per-server policies, guild configs, action rules, and blacklist metadata in PostgreSQL with image files stored in Cloudflare R2

OPEN SOURCE CONTRIBUTIONS

PyTorch Forecasting Remote

Open Source Contributor

2026

- Implemented LightTS v2 forecasting model with sampling branches, IEBlock exchange, highway layer, quantile outputs, and package tags
- Refined NLinear v2 with metadata guards, target-history validation, quantile reshaping, target scaling support, and model-level tests
- Added test coverage for initialization, forward pass, quantile outputs, malformed tensors, unsupported inputs, and univariate forecasting

EXPERIENCE

Outlier AI Remote

AI Code Reviewer / Coding Evaluator

2025 – Present

- Reviewed AI-generated code for correctness, instruction following, edge-case handling, test quality, and rubric alignment
- Identified bugs in model-written solutions, fixed flawed implementations, and explained failure modes with clear technical feedback
- Evaluated Coding tasks involving debugging, algorithms, code reasoning, and maintainability

TECHNICAL SKILLS

Languages: Python, SQL, TypeScript

Backend: FastAPI, REST APIs, AsyncIO, SQLAlchemy, Discord API

Databases: PostgreSQL, SQLite, Redis

ML/AI: PyTorch, PyTorch Forecasting, NLP pipelines, embeddings, ranking systems

DevOps: Docker, Linux, Git, Cloudflare R2