

PIYUSH SATTI

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SUMMARY

Full-stack software developer with 2 years of hands-on experience building and shipping production applications, owning backend services, data models, and user-facing workflows.

TECHNICAL SKILLS

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| Languages | Python, JavaScript/TypeScript, Java, SQL, HTML/CSS |
| Full-stack | React, Redux FastAPI, Flask, Spring Boot, Express/Node, REST, GraphQL |
| Agentic Systems | LLM APIs, Prompt Engineering, RAG pipelines, LangGraph, Vector Databases |
| Tools & Storage | PostgreSQL (Supabase), MongoDB, Redis, Git/GitHub, Docker, GitHub Actions, CI/CD |

EDUCATION

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| Concordia University (GPA: 3.62/4.3) <i>Master of Science, Applied Computer Science</i> | Montreal, Quebec, Canada Sept. 2023 – Aug. 2025 |
| Thapar Institute of Engineering and Technology (GPA: 8.96/10) <i>Bachelor of Engineering, Electronics and Computer Engineering</i> | Patiala, Punjab, India Jun. 2017 – Jun. 2021 |

EXPERIENCE

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| Teaching Assistant <i>Concordia University</i> | Montreal, Quebec, Canada Jan. 2025 – Apr. 2025 |
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- Programmer on Duty (Java) for Object-Oriented Programming. Taught OOP concepts, File I/O, Polymorphism, Recursion, Exception Handling, Abstract Classes and Interfaces, and Inheritance.

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| Software Developer <i>Freelance (Upwork, forums)</i> | Remote Aug. 2021 – Apr. 2023 |
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- Delivered end-to-end client software engagements from requirements discovery through design, implementation, feedback iterations, and handoff, consistently working under fixed scope and deadlines.
- Built backend services and third-party API integrations in Python (FastAPI, Flask), focusing on maintainable code, correctness, and operational stability.
- Developed a vision-based game QA automation harness using OpenCV for on-screen state detection and PyAutoGUI for input control, enabling repeatable regression runs.
- Shipped an ML-powered movie recommendation web app with a React frontend and a Node.js backend, exposing APIs for search and personalized recommendations.

PROJECTS

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| Community Event Signup & Approval Platform <i>Python, JavaScript, React, FastAPI, GraphQL, PostgreSQL, Supabase</i> | github.com/piyushsatti/nonagon Nov. 2025 – Present |
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- Built a **GraphQL-first full-stack platform** for community event postings and sign-up workflows, implementing schema-driven queries and mutations on FastAPI (Strawberry) with a React client.
- Implemented **username/password authentication** with secure password hashing and **JWT-based sessions**, plus resolver-level RBAC to secure approvals, edits, and visibility rules.
- Modeled core workflows in **PostgreSQL** with SQLAlchemy, enforcing referential integrity and pagination patterns enabling infinite-scroll views across events, sign-up requests, approvals, and notifications.
- Delivered a **dashboard and analytics UI** and an interactive **relationship graph view** (zoom, pan, scroll) in React to visualize linked entities and surface engagement signals.

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| Turn-Based Strategy Game Engine & Map Editor <i>Java, JUnit</i> | github.com/piyushsatti/risk-emulated Jan. 2024 – Apr. 2024 |
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- Built a **turn-based strategy game engine** with map-editor and gameplay modes, orchestrating player setup, country assignment, reinforcement calculation, and round-robin order execution.
- Implemented a **State-driven** phase controller and **Command-style** parsing/validation to gate actions by phase and convert terminal input into structured operations.
- Developed a **graph-based map builder and validator** enforcing world connectivity and continent constraints to ensure only legal maps are loadable and playable.
- Structured the codebase with **MVC separation** and **Strategy-based** policy hooks to support pluggable AI behaviors and targeted JUnit test scenarios.