

# PIYUSH SATTI

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## SUMMARY

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

## EDUCATION

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<b>Concordia University</b> (GPA: 3.62/4.3) <i>Master of Science, Applied Computer Science</i>	Montreal, Quebec, Canada Sept. 2023 – Aug. 2025
<b>Thapar Institute of Engineering and Technology</b> (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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<b>Teaching Assistant</b> <i>Concordia University</i>	Montreal, Quebec, Canada Jan. 2025 – Apr. 2025
<ul style="list-style-type: none"><li>Programmer on Duty (Java) for Object-Oriented Programming. Taught OOP concepts, File I/O, Polymorphism, Recursion, Exception Handling, Abstract Classes and Interfaces, and Inheritance.</li></ul>	
<b>Software Developer</b> <i>Freelance (Upwork, forums)</i>	Remote Aug. 2021 – Apr. 2023
<ul style="list-style-type: none"><li>Delivered end-to-end client software engagements from requirements discovery through design, implementation, feedback iterations, and handoff, consistently working under fixed scope and deadlines.</li><li>Built backend services and third-party API integrations in Python (FastAPI, Flask), focusing on maintainable code, correctness, and operational stability.</li><li>Developed a vision-based game QA automation harness using OpenCV for on-screen state detection and PyAutoGUI for input control, enabling repeatable regression runs.</li><li>Shipped an ML-powered movie recommendation web app with a React frontend and a Node.js backend, exposing APIs for search and personalized recommendations.</li></ul>	

## PROJECTS

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<b>Community Event Signup &amp; Approval Platform</b> <i>Python, JavaScript, React, FastAPI, GraphQL, PostgreSQL, Supabase</i>	<a href="https://github.com/piyushsatti/nonagon">github.com/piyushsatti/nonagon</a> Nov. 2025 – Present
<ul style="list-style-type: none"><li>Built a <b>GraphQL-first full-stack platform</b> for community event postings and sign-up workflows, implementing schema-driven queries and mutations on FastAPI (Strawberry) with a React client.</li><li>Implemented <b>username/password authentication</b> with secure password hashing and <b>JWT-based sessions</b>, plus resolver-level RBAC to secure approvals, edits, and visibility rules.</li><li>Modeled core workflows in <b>PostgreSQL</b> with SQLAlchemy, enforcing referential integrity and pagination patterns enabling infinite-scroll views across events, sign-up requests, approvals, and notifications.</li><li>Delivered a <b>dashboard and analytics UI</b> and an interactive <b>relationship graph view</b> (zoom, pan, scroll) in React to visualize linked entities and surface engagement signals.</li></ul>	
<b>Turn-Based Strategy Game Engine &amp; Map Editor</b> <i>Java, JUnit</i>	<a href="https://github.com/piyushsatti/risk-emulated">github.com/piyushsatti/risk-emulated</a> Jan. 2024 – Apr. 2024
<ul style="list-style-type: none"><li>Built a <b>turn-based strategy game engine</b> with map-editor and gameplay modes, orchestrating player setup, country assignment, reinforcement calculation, and round-robin order execution.</li><li>Implemented a <b>State</b>-driven phase controller and <b>Command</b>-style parsing/validation to gate actions by phase and convert terminal input into structured operations.</li><li>Developed a <b>graph-based map builder and validator</b> enforcing world connectivity and continent constraints to ensure only legal maps are loadable and playable.</li><li>Structured the codebase with <b>MVC separation</b> and <b>Strategy</b>-based policy hooks to support pluggable AI behaviors and targeted JUnit test scenarios.</li></ul>	