

Sahil Patel

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Summary

5th year Computer Science student at Rochester Institute of Technology focused on backend development, with interests in DevOps and AI/ML.

Technical Skills

Programming Languages: Python, TypeScript, JavaScript, Rust, Java, C, C#, Dart, SQL, HTML, CSS, MATLAB
Deep Learning Frameworks & Libraries: TensorFlow, PyTorch, NumPy, Pandas, Scikit-Learn, OpenCV
Frontend Frameworks & Libraries: React, Flutter, Angular, PyQt, shadcn, Next.js, Django, TailwindCSS, Bootstrap
Tools: Docker, Notion, Postman, Trello, Linux

Education

Rochester Institute of Technology Rochester, NY
B.S. in Computer Science, Minor in Music Technology Aug 2022 – December 2026
Relevant Coursework: Algorithms, Data Structures, Computer Vision, Artificial Intelligence

Experience

Software Engineer Intern | MKS Jan 2026 – August 2026

- Built Recipe Runner, a Python tool letting SQA engineers script and replay command sequences against MKS hardware
- Automated recipe runner regression testing with PyTest through triggering Jenkins/Cloudbees pipelines, replacing manual runs
- Published the tool to a self-hosted PyPI Nexus registry, making it installable company-wide instead of passed around by hand

Projects

Bits n' Bytes UI | Flutter, Twilio Jan 2024 – Present

- Owned architecture and implementation of the Flutter touchscreen UI for a smart vending cabinet demoed at Open Sauce 2026
- Drove door and hatch actuation and weight-sensor reads over serial, coordinating ESP32 controllers from the Raspberry Pi
- Refactored the UI using the MVVM pattern, isolating device I/O from presentation so hardware changes no longer forced UI rewrites

Bits n' Bytes AI | PyTorch, OpenCV Jan 2024 – Present

- Curated and annotated a 2,000-image snack dataset, defining the class taxonomy and labeling standards for inventory detection
- Fine-tuned a YOLO object detector to 80% mAP, letting the cabinet identify items customers removed without barcode scanning
- Applied augmentation tuned to the cabinet's real lighting and occlusion conditions to harden the model against deployment drift

Rocket League General Manager | Gin, React, Postgres July 2026 – Current

- Built a Go/Gin service that ingests and normalizes Ballchasing.com match data for the top 500 professional players into Postgres
- Trained a K-Means model over per-player performance metrics to surface 3 distinct playstyle archetypes
- Designed a synergy score on those clusters that ranks prospective roster combinations by predicted compatibility

Neutron.ts | Typescript August 2026 – Current

- Built a React-like UI framework from scratch in TypeScript, implementing the reconciliation and reactivity internals by hand
- Designed a Lit-style declarative API that trades React's abstraction surface for a smaller, framework-agnostic authoring model
- Built on the native Web Components API so components run in any browser with no build step or runtime dependency

Activities

Computer Science House Rochester, NY
Socials Director January 2026 – June 2026

- Organized events with external facing entities for over 65 active members
- Ran weekly meetings gauging house interest on new social events

Member September 2023 – Current

- Technical community emphasizing hands-on learning and a strong social atmosphere
- Passionate member contributing to the social atmosphere and house-wide projects
- Continually enhancing my understanding of programming and learning from student-led seminars