

Yash Patel

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EDUCATION

University of Illinois Urbana-Champaign

EXP: 2028

Bachelor of Science in Computer Science and Mathematics

GPA: 3.76/4.00

- **Relevant Coursework:** Data Structures & Algorithms, Discrete Structures, Computer Systems
- **Certifications:** Web Development Bootcamp (Udemy), Java (Codecademy), HTML (Codecademy)

EXPERIENCE

Machine Learning Research Assistant

Aug 2025 – Feb 2026

University of Illinois Chicago

Chicago, IL

- Conducted an LLM hallucination analysis by generating, validating, and reviewing model-produced statements using Python and core NLP workflows
- Built scalable text-processing pipelines with Hugging Face, PyTorch, and similarity metrics
- Applied prompt engineering, inference optimization, and ML evaluation to assess generative reliability

Machine Learning Intern

May 2025 – Aug 2025

University of Illinois Chicago

Chicago, IL

- Designed and built an AI system using LLMs to automate and evaluate patent-style text, supporting data engineering and experimentation workflows
- Engineered scalable data pipelines and NLP preprocessing systems using Python to prepare large unstructured text for efficient LLM/ML analysis
- Applied evaluation metrics and embedding-based similarity methods to assess factual accuracy

Web Development Bootcamp

May 2025 – Aug 2025

Udemy

Remote

- Built and deployed full-stack web applications using JavaScript, Node.js, Express, MongoDB, and HTML/CSS, following clean architecture
- Designed responsive, accessible UIs and implemented REST APIs, authentication, and form validation
- Built reusable UI components and clean layouts to enhance overall user experience

PROJECTS

CatAI | *Swift, Python, FastAPI, OpenAI API, Supermemory, Supabase*

Feb 2026 – Mar 2026

- Engineered a Caterpillar inspection copilot that converts inputs into a 38-field structured checklist, reducing manual reporting time by 20–30%
- Orchestrated a FastAPI + OpenAI pipeline generating structured outputs (PASS/MONITOR/FAIL) and persisting reports to Supabase for real-time retrieval
- Integrated Supermemory to retrieve historical inspection data across sessions, enabling proactive detection of recurring defects

EcoSphere | *React.js, FastAPI, Python, Tailwind CSS, Google Cloud, Clerk Auth*

Sep 2025 – Dec 2025

- Built a sustainability-focused full-stack application to help users discover location-based solar panel options
- Implemented provider integrations, including Google Places, custom recommendation engines, and secure authentication with Clerk
- Planned deployment with Google Cloud Run for the backend and Vercel for the frontend to support scalability and global performance

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, HTML/CSS, Java

Frameworks: React.js, Node.js, Flask, WordPress, Bootstrap, Material-UI

Developer Tools: Git, Linux, Docker, Google Cloud, NumPy

Databases & APIs: SQL, FastAPI, RESTful APIs, MongoDB, Mongoose