

# Dhruv Raval

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## EDUCATION

### University of Illinois at Urbana-Champaign

Bachelor of Science in Computer Science and Economics | GPA: 4.0/4.0

Champaign, IL

Graduation: May 2026

## EXPERIENCE

### Honeywell

Software Engineering Intern III

Kansas City, Missouri

Jul 2024 - Present

- Pioneered the company's first **Retrieval Augmented Generation (RAG) LLM** efforts by fine-tuning a locally-hosted Llama-2 model.
- Developed a proof-of-concept secure data pipeline, enabling cross-functional business units to build new applications by creating an API from Apache HDFS.
- Led the alpha deployment of an internal software product by deploying containerized .NET microservices using Docker.

Software Engineering Intern II

June 2023 - Jun 2024

- Finalized the an MVP for an internal software product with a deployment scale of 10,000+ users by designing backend infrastructure and implementing RESTful APIs for data transmission.
- Deployed a MongoDB NoSQL database and API, enabling quick transfer of large datasets to a front-end UI.
- Designed high throughput data pipelines by creating new data compression and decimation algorithms, enabling the creation of industry-first proof of concept data analysis tools.

### Iowa State University

Machine Learning Research Assistant

Ames, Iowa

Jan 2023 - May 2023

- Developed a novel Automatic Symptom Detection Machine Learning model, enabling differential diagnosis for medical patients.
- Created an evidence-acquisition branch by fine-tuning GPT-3 on 1,000,000 virtual patients, resulting in a 99.7% disease diagnosis model accuracy.
- Recognized for outstanding research and selected to be presented at SACNAS National Research Conference.

## LEADERSHIP AND INVOLVEMENT

### Disruption Lab at Gies

Head of Technology

Champaign, Illinois

Jul 2024 - Present

- Lead technical development for 10+ projects spanning AI, VR, and blockchain for clients including AMD and **FINISH** while managing `number` software engineers.

Technical Lead

Jan 2024 - May 2024

- Managed a team of 6 software engineers and architected a full-stack AI resume management system for the University of Illinois.

Software Engineer

Aug 2023 - Dec 2023

- Delivered a full-stack internal documentation chatbot application to a client by creating a Retrieval Augmented Generation (RAG) Chatbot with Langchain and OpenAI.

## PROJECTS

### AI Learning Tool | Python, Flask, OpenAI, Javascript, Node.js, React

Apr 2023

- Won 2nd place out of over 50 contestants at HackIowaState for an AI-generated learning tool.
- Utilized Node.js and implemented the OpenAI API and a depth-first search algorithm to create learning maps and summarized video notes.

### Safety Scan | Python, OpenCV, Figma

Sep 2022 - Feb 2023

- Created a computer vision object recognition model tracking safety equipment usage in manufacturing environments using OpenCV and raised **\$21,000** in non-dilutive funding.

## TECHNICAL SKILLS

**Languages:** Python, Java, C, C#, JavaScript, HTML/CSS

**Frameworks/Technologies:** MongoDB/NoSQL, GraphQL, Flask, JUnit, OpenCV, NLTK, Postman

**Developer Tools:** Git, Docker, Jira, Confluence