

# Dhruv Raval

630-999-9230 | [contact@dhruvraval.com](mailto:contact@dhruvraval.com) | [dhruvraval.com](http://dhruvraval.com) | Active DOE Q (TS) Clearance

## 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

Jun 2024 - Present

- Spearheaded the company's first **Retrieval Augmented Generation (RAG)** LLM efforts by optimizing embedding models and chunk sizes on a locally-hosted model.
- Engineered a proof-of-concept secure data pipeline, enabling a **300+ member business unit** to develop new applications by creating a Python API for efficient data access from Apache HDFS.
- Led the alpha deployment of an internal software product by deploying containerized **.NET microservices** using **Docker**.

Software Engineering Intern II

Jun 2023 - Jun 2024

- Finalized an internal software product with a deployment scale of **10,000+ users** by designing backend infrastructure and implementing RESTful APIs for data transmission.
- Automated a high-visibility manual process by deploying a MongoDB NoSQL database and API, reducing engineers' data retrieval time by **over 90%**.
- Designed high throughput data pipelines by creating new data compression and decimation algorithms, enabling the creation of industry-first proof of concept 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**.

## LEADERSHIP AND INVOLVEMENT

### Disruption Lab at Gies

Head of Technology

Champaign, Illinois

Jun 2024 - Present

- Lead technical development for 3 projects spanning AI, VR, and blockchain for clients including the State of Illinois and AMD, while managing **25+ software engineers**.

Technical Lead

Jan 2024 - May 2024

- Managed a team of 6 software engineers and delivered 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 to a client by creating a **Retrieval Augmented Generation (RAG)** model 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, React

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