

# DHRUV RAO

☎ (860)-502-8910 ✉ rao-dhruv@outlook.com 🌐 rao-dhruv.github.io 🔗 linkedin.com/in/dhruvrao19/ 🐙 GitHub

## Education

### University of Connecticut

*Master of Science in Computer Science and Engineering*

Storrs, CT, USA

May 2024

### Visvesvaraya Technological University

*Bachelor of Engineering in Computer Science and Engineering*

Bengaluru, India

August 2021

## Professional Experience

### Applied Algorithms Lab

January 2024 – May 2024

*Researcher - University of Connecticut*

Storrs, CT, USA

- Developed an advanced spatial-query algorithm for record linkage by modifying the closest pair problem approach under the guidance of the School of Computing's Director, collaborating with the US Census Bureau.
- Achieved a remarkable 97% accuracy in high-dimensional data analysis, outperforming traditional methods like E2LSH.

### University of Connecticut

January 2023 – May 2024

*Graduate Teaching Assistant - Intro to Computer Architecture*

Storrs, CT, USA

- Worked as a graduate assistant at the UConn College of Engineering under Professor Zhijie Jerry Shi and Caiwan Ding performing all assistant duties with a class size of 180+ students.
- Led two weekly lab sessions on low-level programming with RARS and hardware implementation using Python, conducted bi-weekly office hours for student support, provided feedback to over 80+ students, and also engaged in grading. Managed test case creation and lab configuration using Auto Grader.

### Tech Sells

January 2022

*Intern (Remote)*

Mumbai, India

- Developed and implemented shell scripts to automate routine operational tasks, resulting in a 30% increase in efficiency.
- Managed client and candidate tracking systems with PostgreSQL backend for accurate data management and used Power BI for enhanced reporting and analysis.

### Zerozilla Infotech Pvt. Ltd.

March 2021 – April 2021

*Web Developer Intern*

Bengaluru, India

- Worked on developing the real estate price forecasting and SOS features integrating Agile management practices with Git and JIRA to streamline workflows, and increase productivity by 60%.
- Conducted API profiling to identify bottlenecks causing high latency, optimizing performance through cached queries and database indexing. Created a location tracking service in JavaScript and Python, achieving a 20% reduction in API latency.
- Deployed a JavaScript tool for automated client email reports, enhancing task visualization by 25% and latency by 40%.

### LegalEase Technologies Pvt. Ltd.

May 2020 – July 2020

*Software Developer Intern*

New Delhi, India

- Collaborated with a team of people and contributed to creating the company's official website using the SDLC Model enhancing their online presence involved in both front-end and backend development and deployment.
- Utilized SQL for executing database queries, resulting in a significant 20% improvement in data retrieval efficiency by fine-tuning the database configuration updating the data in a MySQL datasheet, and projecting it onto the website.
- Tailored a user-friendly interface with an optimized checkout page and introduced components that refined functionality, facilitating A/B testing also enhancing capabilities that improved system downtime by 33%.

## Technical Skills

**Programming Languages:** Python, JavaScript, Java, R, SQL, C++, PHP, HTML/CSS, Assembly

**Frameworks:** React, Django, Flask, NodeJS, Tailwind CSS, Fast API, GraphQL

**Libraries:** Open CV, TensorFlow, NLTK, scikit-learn, Keras, NumPy, Pandas, Matplotlib

**Tools:** Jira, Git, WordPress, POSTMAN, GitHub, Tableau, Alteryx, Power BI, Figma, Canvas, MS Excel, Power Maps

**Database:** PostgreSQL, MySQL, Snowflake, MongoDB, Cassandra, SQLite

## Academic Project Experience

### Loan Approval Prediction Analysis

- Implemented crucial KPIs such as credit score trends and visualized customer segmentation via Power BI for data-driven improvements. Developed and optimized a predictive loan approval model with 88% accuracy.

### Spotify Music Recommendation System

- Designed a music recommendation system for Spotify using Python, analyzing 40M+ rows of data, including 17K songs and 500K user behaviors. Implemented personalized recommendations to enhance user experience.