

# DHRUV RAO

Visit Portfolio: <https://rao-dhruv.github.io/>

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## 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, KA, India

August 2021

## WORK EXPERIENCE

### Data Analyst | Applied Algorithms Lab

Jan 2024 - Present

- Improved accuracy of 15K healthcare records by up to 13.6% using record linkage algorithms, reducing care costs by fewer errors.
- Saved costs by enhancing linkage efficiency in datasets, resolving 59% of reviewer disagreements through a multi-reviewer process.
- Processed over 1M+ records, created visualizations using Tableau, and conducted data reporting to support decision-making.
- Worked with cross-functional teams to develop and implement compliant data migration strategies for seamless integration.
- Showed strong analytical skills by resolving complex database issues and implementing solutions to improve data system accuracy.
- Developed a spatial query algorithm leveraging closest pair approach benefiting decision-making for private and public sectors.
- Achieved an accuracy rate of nearly 97% in high-dimensional data analysis, benchmarking results against the E2LSH algorithm.

### Course Assistant | University of Connecticut

Jan 2023 - May 2024

- Collaborated with 2 UConn faculty to enhance Computer Architecture course engagement and completion rates.
- Held two weekly labs on python programming, mentored 80+ students in office hours, and assisted with grading assessments.
- Created various unit test cases using Verilog to be implement in Auto Grader for efficient evaluation of lab programs.

### Web Developer Intern | Zerozilla Infotech Private Limited

Mar 2021 - Apr 2021

- Designed a UI for real estate price forecasting tool with an SOS feature, increasing productivity by 60% through Agile management.
- Optimized REST API performance by cache queries, initiated a location-tracking service for faster data driven decision-making.
- Devised a tool to automate the client reporting process, and also improved task visualization through streamlined reporting.

### Software Developer Intern | LegalEase Corporate Private Limited

May 2020 - Jul 2020

- Worked with 2 Agile teams and helped in creating the company website using the SDLC model, enhancing functionality and checkout process, and reducing system downtime through A/B testing.
- Maximized PL/SQL for executing database queries, resulting in a significant improvement in data retrieval efficiency by fine-tuning the database configuration and updating the datasheets.
- Conducted customer segmentation and market analysis using a custom Azure pipeline, and implemented a dashboard for insights.
- Refined data processing solutions, increasing system efficiency by 30% & automating data workflows to cut manual effort by 35%.
- Led meetings to define and clarify product requirements and design specifications, ensuring alignment and effective collaboration.

## ACADEMIC PROJECT EXPERIENCE

- Crypto Trend Analysis:** Programmed data extraction and analysis of five years of historical data for 3 cryptocurrencies using Twelvedata APIs, implementing ETL processes for data quality and consistency. Trained a recurrent neural network model, achieving an accuracy of 78% in predicting market ongoing trends for potential investors.
- Loan Approval Prediction:** Spearheaded loan approval process by rigorously evaluating and comparing diverse supervised Machine Learning techniques, achieving an 82% accuracy rate. Deployed a linear model using Scikit-learn to classify loan eligibility, by integrating multiple crucial factors such as marital status, employment status, age, income, etc.
- Covid-19 Finder:** Built a high-performance COVID-19 detection website, leveraging Convolutional Neural Networks for image processing, and achieved 93% accuracy by training over 10,000+ sample images. Led the development of a real-time global COVID-19 statistics visualization using React.js and Flask, dynamically displaying key metrics on an interactive world map.

## TECHNICAL SKILLS

Python, SQL, JavaScript, HTML/CSS, Java, C++, R, PHP, Bash, React.js, Django, Node.JS, PostgreSQL, Oracle, NoSQL – MongoDB, Cassandra, Snowflake, NumPy, Pandas, Matplotlib, Keras, TensorFlow, Scikit-learn, PyTorch, OpenCV, Git, Power BI, Microsoft Office, Excel, GitHub, Tableau, WordPress, Alteryx, Jira, TypeScript, ETL, Jenkins, Linux, REST API, Docker, Hadoop, Spark, Kafka, CI/CD

## ACHIEVEMENTS

- Launched a Google Chrome extension for OPT students to track unemployment days for compliance, earning positive user feedback.
- Published a peer-reviewed paper in the CiiT International Journal of Digital Image Processing at the NCAIT conference, Bengaluru.
- Developed an award-winning automated mini-game at HaXploit 24-Hour Hackathon, receiving high praise from board members.
- Showcased an augmented reality virtual clothing try-on system to potential investors, securing their endorsement & future support.