Dhruv Rao

Portfolio: rao-dhruv.github.io
Github: github.com/rao-dhruv

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Education

- **University of Connecticut** — Storrs, CT
  Master of Science - Computer Science and Engineering — *May 2024*
- **Visvesvaraya Technological University** — Bengaluru, India
  Bachelor of Engineering - Computer Science and Engineering — *August 2021*

Skills Summary

- **Programming Languages:** Python, JAVA, PHP, JavaScript, SQL, R, Bash, C, HTML5, CSS3.
- **Library/Frameworks:** React.js, Django, Flask, Node.JS, Scikit, NLTK, TensorFlow, Keras, PyTorch, OpenCV.
- **Database:** PostgreSQL, Oracle SQL, MySQL, SQLite, NoSQL.
- **Tools:** Kubernetes, Git, Docker, POSTMAN, GitHub, WordPress, Tableau, Power BI.

Work Experience

- **Zerozilla Infotech Pvt. Ltd.** — Bengaluru, India
  Web Developer Intern — *March 2021 - April 2021*
  - Built a house-price forecast portal as part of an Agile team using Git version control system and Python as the backend.
  - Implemented a script for automated client email reports, enhancing task visualization and accuracy by 25% while cutting processing time by 40%.
  - Designed multiple web pages according to client specifications ensuring optimal satisfaction.
  - Created and tested APIs using POSTMAN to facilitate seamless CRUD operations on customer databases.
- **Legal Ease Technologies Pvt. Ltd.** — Delhi, India
  Full-Stack Developer Intern — *May 2020 - July 2020*
  - Collaborated with a team and successfully developed a sleek official website, enhancing the company's online presence.
  - Tailored user-friendly interface with an optimized checkout page, resulting in 33% increase in customer satisfaction rate.
  - Performed extensive testing and crafted a user interface to ensure optimal compatibility across multiple browsers.
  - Utilized MySQL for database queries, achieving a 20% improvement in data retrieval efficiency.

Academic Experience

- **UConn School of Engineering** — Storrs, CT
  Graduate Teaching Assistant - Intro to Computer Architecture — *January 2023 - May 2024*
  - Led two weekly lab sessions, teaching low-level programming with RARS and Python for Low-level development.
  - Conducted bi-weekly office hours, providing student support, and giving constructive feedback to over 80+ students.
  - Engaged in Grading assignments, mid-term exams, and final exams for a class of nearly 120 students.

Projects

- **Record Linkage Algorithm:** Developed an advanced spatial query algorithm that outperformed traditional methods, achieving 100% accuracy in high-dimensional data analysis. Optimized for various applications including healthcare and urban planning, with comparative evaluations using E2LSH.
- **Bitcoin-Oracle:** Leveraged the Yahoo Finance API to programmatically extract and analyze five years of Bitcoin historical data from JSON format, supporting strategic decision-making in the volatile cryptocurrency market. Achieved a notable 78% accuracy in forecasting Bitcoin prices using advanced Deep Learning and LSTM neural networks.
- **Covid-Finder:** Engineered a rapid COVID-19 detection website using a Convolutional Neural Network trained on nearly 10,000 sample images, achieving 93% accuracy. Additionally managed a real-time visualization of global COVID-19 statistics, including active cases, deaths, and recoveries, displayed on an interactive world map.
- **Swift-Serve Finance:** Created a paperless account opening software that achieved a 40% reduction in paperwork. Enhanced transaction tracking efficiency by 33% through a centralized account management system, utilizing National/Unique IDs for a streamlined operation.
- **Insta Card:** Designed an optimized website that streamlined credit/debit card applications, achieving a 50% reduction in processing time. Enhanced the platform by integrating a tech support chatbot that conducts credit score checks, leveraging the architecture of bank loan applications.

Publications

- **Paper Title: [Detection of COVID-19 Infection from Chest X-Ray Images using CNN]** Published after a peer review at the CiiT International Journal of Digital Image Processing sponsored 7th National Conference on Advancement in Information Technology (NCAIT), Bengaluru. (March '21)

Honors and Awards

- Won department's top spot, earning VTU Financial Assistance for innovative projects due to consistent excellence.
- Developed a notable mini-game at the HaXploit a 24-Hour Hackathon, earning recognition from board members.
- Presented an augmented reality(AR) virtual clothing try-on system to potential investors, securing their endorsement.