DHRUVIL BHATT

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EDUCATION

Master of Computer Science, *University of California, Irvine*B.Tech in ICT and with minors in Computational Science, *DA-IICT, GPA: 8.8/10*

Sept 2022 - Dec 2023 Aug 2018 - May 2022

TECHNICAL SKILLS

C, C++, Python, JavaScript, HTML, CSS, SQL, React, Node.js, Next.js, PHP, Matlab, Drupal, MongoDB, Firebase, Tailwind CSS

EXPERIENCE/INTERNSHIPS

Software Developer Intern, HuddleUp, Remote

Mar 2022 — June 2022

- Worked as a frontend engineer to build a custom LMS (Learning Management System) for different clients
- Companies can use this portal to educate their employees by adding their customized teaching modules, customize workspace and channels, and devise their own quizzes

Research Intern, DA-IICT, Gandhinagar, India

Jan 2022 — June 2022

- Curated the largest open-source dataset for Corporate Credit Rating with Financial Ratios (Link to the dataset)
- Devised a set of time-independent, simple if-else rules based on financial ratios to help corporate firms attain investment grade rating
- Explainable AI techniques have been used for prediction and visualisation purpose to offer better interpretability of results

Teaching Assistant, DA-IICT, Gandhinagar, India

Aug 2021 — Dec 2021

- Teaching assistant for the course of Computational Finance, and conducted weekly lab sessions for the final-year MSc Data
 Science students
- Involved in preparing lab assignments, clarifying conceptual doubts of the students, and teaching relevant subject topics along with grading lab assignments

Research Intern, DA-IICT in association with the Institute for Plasma Research (IPR), Gandhinagar, India

Oct 2020 — Aug 2021

- Developed an efficient serial algorithm for generating synthetic images of plasma
- Noises of different distributions were added to make the images more realistic
- Parallelized the developed serial algorithm using OpenMP for generating the synthetic images of plasma at a very rapid rate

Research Intern, DA-IICT, Gandhinagar, India

May 2021 — Aug 2021

- Devised an algorithm that could efficiently count the number of leaves in the image of a plant
- Project aimed at assisting plant phenotyping and specifically for detecting diseases in plants at an early stage
- Techniques related to semantic and instance segmentation have been used along with ML models for prediction purpose

Summer Intern, Indian Institute of Technology (IIT) - Bombay, Mumbai, India

Apr 2020 — Jun 2020

- Made custom plugins for content migration from Drupal 6 and 7 to Drupal 8 (Link to the fellowship report)
- Migration of *Drupal* websites implemented using *Drush* command line as well as using *Drupal* UI.
- Migrated hss.iitb.ac.in from Drupal 7 to 8 without any data loss, using custom-made plugins and other modules

PROJECTS

Real-Time Chat App

- Made a **real time web app for chatting, synced with Google account**. Users can converse with multiple contacts, and can see whether the other person is currently logged in to the app or not.
- Read messages are differentiated from unread ones using different color codes.

Music recommendation system

- Made a custom recommender system that suggests songs which the user is likely to listen to
- Songs recommended on the basis of collaborative and content-based filtering

PUBLICATIONS

- Kirtan Delwadia, **Dhruvil Bhatt**, Shishir Purohit, and Bhaskar Chaudhury, "*Parallel algorithm for synthetic image generation with application to tokamak plasma diagnostics*," submitted at "Concurrency and Computation: Practice and Experience" journal (DOI: **10.1002/cpe.7217**)
- **Dhruvil Bhatt**, Kirtan Delwadia, Shishir Purohit, and Bhaskar Chaudhury, "Computational Modeling of Noisy Plasma Images applicable to Tokamak Imaging Diagnostics for Visible and X-ray Emissions," submitted at "ICMC 2023 (International Conference on Mathematics and Computing)" (under review)
- Ravi Makwana, **Dhruvil Bhatt**, Kirtan Delwadia, Agam Shah, and Bhaskar Chaudhury, "How to Get Investment Grade Rating in the Age of Explainable AI?," submitted at "Expert Systems with Applications" journal (under review)

ONLINE COURSES AND CERTIFICATIONS

- Divide and Conquer, Sorting and Searching, and Randomized Algorithms
- Graph Search, Shortest Paths, and Data Structures
- Applied Machine Learning in Python
- Introduction to Data Science in Python

Stanford University

Stanford University University of Michigan

University of Michigan