DHRUVIL BHATT

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EDUCATION

University of California, Irvine (Irvine, CA) September 2022 - December 2023
Master of Computer Science

DA-IICT (Gandhinagar, India) August 2018 - May 2022
B.Tech in ICT and with minors in Computational Science **GPA: 8.8/10**

TECHNICAL SKILLS

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

EXPERIENCE

HuddleUp (Remote) March 2022 - June 2022
Software Engineer Intern

- Collaborated with frontend team to **build a custom LMS (Learning Management System)**.
- Executed web pages for adding new channels, challenges, and quizzes to a specific workspace, which can be utilized by the companies to impart most relevant skillset to its employees.

DA-IICT (Gandhinagar, India) January 2022 - June 2022

Research Intern

- **Curated the largest open-source dataset** (comprising of **7805 datapoint**, which is **4 times larger** than the previously available largest public dataset) for Corporate Credit Rating with Financial Ratios (Dataset Link).
- Devised a set of **time-independent, simple if-else rules** based on financial ratios to **help corporate firms attain investment grade rating** with a mean precision value of **95%**.
- Boosted the **interpretability of the results** by applying **Explainable AI technique (decision Tree)** for prediction and visualization purpose.

DA-IICT in association with the **Institute for Plasma Research (Gandhinagar, India)** October 2020 - August 2021
Research Intern

- Designed an **efficient serial algorithm for generating the synthetic images of plasma**.
- Added **noises of different distributions** to construct **more realistic** plasma images.
- **Parallelized the developed serial algorithm** (with OpenMP API) for generating a synthetic image of plasma in **0.65 seconds** (which is **21 times faster** than the serial algorithm).

Indian Institute of Technology (IIT) – Bombay (Remote) April 2020 - June 2020
Summer Intern

- Built **custom plugins** for content migration from Drupal 6 and 7 to Drupal 8 (Fellowship Report).
- Explored Drush command line and Drupal UI to migrate Drupal websites.
- 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 | *React, Node.js, MongoDB, Socket.io, CSS*

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

Job Search Portal | *Next.js, MongoDB, Tailwind CSS*

- Launched a **fully responsive social media platform**, that allows users to post job seeking/opening information.
- Implemented theme toggle, and latest news posting (using Google API) feature on the portal (Link to web app).

Hierarchical Clustering of World Cuisines | *Python, Pattern Mining, Postman API*

- Characterized the unique features that are central to 25 different world cuisines in an attempt to **establish inter-relatedness of these world cuisines** (using *FP-Growth Algorithm*).
- Generated 3 dendrograms (for distinct distance metrics) to visualize the interrelationship between different world cuisines using the concept of Hierarchical Clustering.

RESEARCH & PUBLICATIONS

- Kirtan Delwadia, **Dhruvil Bhatt**, Shishir Purohit, and Bhaskar Chaudhury , "*Parallel algorithm for synthetic image generation with application to tokamak plasma diagnostics*," published by "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 (Listed on **SSRN's Top 10 download list**) (under review).