

Chirag Jagad

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EDUCATION

Dwarkadas J. Sanghvi College of Engineering, Mumbai University

2019 – 2023

Bachelor's of Technology, Information Technology

CGPA (Till Sem5): 9.62

- **Relevant Coursework:** Soft Computing | Image Analysis and Computer Vision | Discrete Mathematics, Statistics & Calculus | Datastructures and Algorithms | Data Mining | Database Management | Computer Networks & Security

NMF Junior College of Science (Higher Secondary School)

2017 – 2019

Computer Science

Score: 82%

PROFESSIONAL EXPERIENCE

Indian Institute of Technology, Delhi (NeuroImaging Lab) | Research Intern

Mar 2021 – Present

Guide: Dr. Tapan Gandhi, Department of Electrical and Biomedical Engineering

- Working on the dipole inversion for Quantitative Susceptibility Mapping using Deep Learning
- Generated synthetic medical data for training and trying to improve the algorithm using the Structural Similarity Index Measure

University of California, San Diego | Research Intern

Aug 2021 – Present

Guide: Prof. Pengtao Xie, Department of Electrical and Computer Engineering

- Working on feature learning by decomposing into domain-specific representations and class-specific representations using Differentiable Architecture Search approaches
- Studied and derived an optimization algorithm for the same and implemented the algorithm using Pytorch

Dwarkadas J. Sanghvi College of Engineering | Research Assistant

Aug 2021 – Present

Guide: Prof. Neha Katre, Department of Information Technology

- Working on improvising feature extraction for event detection in video analytics
- Implemented various versions of YOLO, Faster RCNN, and SSD algorithms and carried out a deep comparative analysis of the performance of algorithms
- Built a YOLO model to detect fire and various types of weapons using a custom dataset

DotSyndicate | Full Stack Web Developer Intern

Mar 2021 – Jan 2022

- Boosted the spike in business by developing an end-to-end admin dashboard for an African E-commerce company by conducting product research and designing an interactive user interface.
- Worked closely with the project managers to collaborate on the ideation of developing the software applications
- Provided real-time Data Analytics with intuitive visualizations for daily business analysis

PUBLICATION WORKS

- “**Federated Machine Learning based Bank-Customer Churn Prediction**”, accepted and will be published in the book “Practical Data Mining Techniques and Applications” by CRC Press, Taylor & Francis Group (Scopus indexed)
- “**A Study on Video Analytics and Their Performance Analysis for Various Object Detection Algorithms**”, accepted and presented at IEEE IAS Global Conference on Emerging Technologies (GlobConET) 2022 and will be published in IEEE Xplore
- “**Smart Healthcare System to Predict Aliments Based on Preliminary Symptoms**”, accepted at 10th International Conference on Innovations in Computer Science and Engineering (ICICSE-2022) and will be published in LNNS Springer series (Scopus indexed)

KEY ACADEMIC PROJECTS

Smart Healthcare System | RnD Project | Machine Learning, Deep Learning, Computer Vision

- Developed an end-to-end website and an application to make technology more useful in solving problematic healthcare challenges by diagnosing various symptoms, analyzing data, and then predicting the diseases
- Built models to predict Myopia, Color Blindness, PCOD, and to generate heart rate using head motions in video and predict the probability of Coronary Heart Disease

Federated Machine Learning based Bank-Customer Churn Analysis | RnD Project | Machine Learning

- Built a robust Multilayer Perceptron model using the Federated Machine Learning approach providing an accuracy of **96%** for Bank Churn Prediction and solved the problem of the imbalanced dataset used by upsampling it
- Presented a deep analysis of the advantages of Federated Machine Learning concerning the accuracy, transmission time, and computation cost

E-commerce Website | College Project | Full Stack Development

- Developed a fully functional e-commerce website with end-to-end functionality and designed the database schema and managed the database
- Built and designed algorithms for key features like Advance Searching, Cart management, PayPal payment integration, Wishlist, Order Tracking, and Reviews and Ratings

FindIt – A solution for lost and found items | Hackathon Project | Full Stack Development

- Built an admin portal for organizations like Railway Stations, Metro Stations, Govt. offices, colleges, etc that have lost and found departments and a mobile application for civilians within **24 hours**.
- Built an app for civilians where they can upload the data of the lost items and admins can do verification of the lost items and give the lost items to the rightful owners
- Developed key features that include a real-time chat box, rightful owner verification, and basic analysis

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, SQL, C/C++ **Machine Learning:** Scikit-learn, Keras, TensorFlow, PyTorch, MONAI
Frameworks: React, Express, Django, Flask, Bootstrap **Database:** SQLite, MySQL, PostgreSQL, MongoDB
Misc: Node.js, HTML, CSS, Git & GitHub, Firebase, Azure, LaTeX

POSITIONS OF RESPONSIBILITIES

DJCSI – Computer Society of India, DJSCE | Chairperson

Aug 2021 – Present

- Leading a team of **60** members with an aim to ignite the budding engineers' passion for technology
- Conducted various workshops and hosted a national level two-day-long competition Pixel Paranoia – Graphic Design and UI/UX competition
- Hosted a 24-hour national hybrid hackathon **CODESHAstra 8.0** which received 800+ applications

DJ Init.AI – The AI club of DJSCE | Junior Mentor

July 2021 – Present

- Mentoring a batch of junior students and teaching them concepts related to AI

Microsoft | Beta Microsoft Learn Student

Apr 2021 – Present

- Hosted a national-level event “ABC’s of Git and GitHub with an Introduction to Web Development” and taught Git, GitHub, and Web Development with hands-on sessions to help students kickstart their journeys

EXTRACURRICULAR ACTIVITIES

- Revamped **70%** of the **DJCSI**’s official website, added new features and maintained it as the **Web Developer**
- The Editor of **A Cluster of Ballads** and the Compiler of **Intoxication** published by Writer’s Pocket
- **Blogger** - Technical Blog on Medium [@chiragjagad](#) and Creative Writing Blog on Instagram [@heychirag](#)
- Volunteered as a **Marketing Associate** for **Trinity**, the Sports-Cultural-Technical fest of DJSCE
- Assisted in organizing the **Annual Alumni Meet 2020** under the **Alumni Coordination Cell** of DJSCE