

# DHAIRYA CHHABRA

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## EDUCATION

### San Diego State University

Masters of Science, Major in Computer Science

San Diego, CA

August 2024 - May 2026

### Savitribai Phule Pune University

Bachelors of Engineering, Major in Computer Engineering (GPA 3.94)

Pune, India

August 2019 - June 2023

## EXPERIENCE

### Student Graduate Assistant - SDSU Research Foundation

San Diego, USA

Part-time

September 2024 – December 2024

- Executing comprehensive **quality control** on brain MRI scans of patients diagnosed with Autism Spectrum Disorder (ASD) using **MRIQC**, ensuring the reliability and accuracy of neuroimaging data for subsequent analyses.
- Analyzing Diffusion Weighted Imaging (DWI) and T1-weighted (T1w) MRI data, generating detailed visual reports to assist in research and clinical diagnosis, thereby facilitating **improved understanding and assessment of ASD-related neuroanatomical features**.

### Software Developer Intern - AFour Technologies

Pune, India

Full-time

March 2023 – March 2024

- Engineered a resignation portal** for the ERP system, utilizing **React.js**, **NestJS**, and **MongoDB**, while creating robust APIs and integrating a relational database. Demonstrating ability to design and build innovative solutions in **large distributed computing** environment.
- Collaborated with a team of 6 engineers** to enhance existing system metrics and optimize business logic, resulting in a more streamlined and robust codebase, showcasing experience in working in an agile environment to deliver high-quality software.
- Refactored legacy code**, reducing front-end compile time by 10% and improving developer productivity, exhibiting skills in building scalable and efficient systems.

### Full Stack Developer Intern – Digilytics Systems LLP

Pune, India

Full-Time

December 2021 -May 2022

- Extensively developed **scalable** and **responsive** components using **React.js**, gaining hands-on experience in enterprise-grade software development within an Agile, Scrum framework and showcasing experience in building distributed systems.
- Led the development of a **No-Code web application** with a **team of 3 developers**, enabling users to create static websites through **drag-and-drop features**, demonstrating ability to conceive and bring innovative products to market.
- Enhanced code quality** by adhering to clean code practices and implementing user-friendly UI designs, improving overall user experience and maintainability while increasing code readability and facilitating easy future enhancements.

## PROJECTS

### Wordcorn ([Link](#)) | NextJS, Supabase, Python, Git

- Building a seamless English vocabulary learning platform** that incorporates synonyms, antonyms, mnemonics, videos, and images, offering an engaging and comprehensive learning experience.
- Integrated quizzes and goal-tracking features** to boost user learning efficiency by 40%, significantly improving vocabulary retention rates and promoting consistent progress among users over time.
- Leveraged Supabase for real-time database management** and Python for backend logic, ensuring a smooth and responsive user experience, while maintaining high performance and reliability standards.

### Healthcare Information Exchange using Blockchain | React, Solidity, MetaMask, SQL

- Engineered a robust patient data exchange system using **blockchain technology**, leading to a 15% reduction in data breaches and enhancing overall data security and integrity.
- Secure authentication integration with the **SQL** database and **MetaMask** wallet raised user verification accuracy by 25%, streamlining the login process and minimizing unauthorized access.
- Seamlessly connecting MetaMask to the web application via **Web3.js** ensured a 99.9% reliable data transactional process, providing users with a secure and efficient way to manage transaction.

### Sentiment Analysis on Twitter Data using TensorFlow | Python, TensorFlow, NLTK, AWS (EC2,S3)

- Built a sentiment analysis model using TensorFlow to classify tweets as positive, negative, or neutral, achieving 87% accuracy on a test dataset, through extensive preprocessing and feature engineering techniques.
- Leveraged MLflow for model training and hyperparameter tuning, optimizing performance with minimal manual intervention, which resulted in faster model convergence and enhanced accuracy.

## SKILLS SUMMARY

- Languages:** JavaScript (ES5/ES6), C, C++, HTML5, Python, JAVA, CSS3
- Frameworks:** Node.js, Next JS, Express.js, Tensorflow/Pytorch, MongoDB, React.js, MySQL, Firebase
- Tools:** Git, GitLab, PowerBI, Linux, Docker, Supabase, AWS(EC2, S3)
- Skills:** Software Development, Agile, Distributed Systems, Micro-services, Algorithms, Data Structures

## Publications

- Chhabra, Dhairya, et al. "Healthcare Information Exchange Using Blockchain Technology." International Conference on Communication and Intelligent Systems. Singapore: Springer Nature Singapore, 2022. ([Link](#))