

Shivangi Dattatrey Kochrekar

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EDUCATION

University of Southern California (USC), Los Angeles, United States of America **Expected May 2024**
Master of Science in Computer Science GPA: **3.85/4**
Courses: Analysis of Algorithms, Database Systems, Web Technologies, Game Development, Information Retrieval

Sardar Patel Institute of Technology (SPIT), Mumbai, India **May 2022**
Bachelor of Technology in Computer Engineering GPA: **9.53/10**
Courses: Object Oriented Programming, Advanced Data Structures, Operating Systems, Computer Networks

TECHNICAL SKILLS

Languages: Python, Java, C#, C++, C, Dart, HTML5, CSS, JavaScript, PHP, Typescript, MATLAB, XML
Databases/Operating Systems: MySQL, MongoDB, PostgreSQL, Oracle, Firebase, Linux, Ubuntu, Windows, MacOS
Frameworks/Tools: Django, Angular, React, Nodejs, .NET, Hadoop, Android Studio, Google Cloud Platform, Git, Docker

PROFESSIONAL EXPERIENCE

Jr. Data Science Intern | [Zummit Infolabs](#), India **Jan 2022–Jun 2022**

- Utilized the DeepFace to conduct identity verification by comparing faces of candidates with government-issued IDs.
- Analyzed **120** model configurations out of which Dlib with retinaface backend & Euclidean distance performed the best.
- Processed **500** self-curated real-time interview audio clips dataset using Librosa and deployed SVM for Classification.
- Achieved an accuracy of **83.3%** for Facial Recognition and an accuracy of **89%** for the Audio Confidence Model.
- Increased accuracy by **17%** of Keyword Score and Answer Similarity Model.

Software Developer Intern / Asphalt Autotech Pvt. Ltd. (Protto), India **Jun 2020–Aug 2020**

- Developed **30+ REST APIs** in PHP, integrated into the mobile applications ([protto](#)) and the website ([protto.in](#)).
- Revamped the front-end of the app in Flutter and launched it on Google Play Store, which has crossed **10k+** downloads.
- Acquired data from **28** tire companies to store in inventory by programming an automation script using Beautiful Soup.
- Reduced response time by **20%** and made query execution more efficient by optimizing SQL queries.

PROJECTS

Woody Wayfinder: Parcel Puzzles | Unity, C#, WebGL, Firebase, Python, Git **Sep 2023-Dec 2023**

- Hosted a puzzle-strategy game with the goal of packing and delivering packages on [GitHub Pages](#) using WebGL build.
- Engineered core gameplay mechanics: algorithm to pick and pack the Tetris pieces and algorithm for scoring system.
- Designed the challenge game levels based on the **real-time data analytics** from users leveraging Firebase and Python.

Yelp Services Web-App and Mobile Application | *HTML/CSS, JavaScript, MVC, JSON* **Sept 2022-Dec 2022**

- Deployed 2 independent websites; Angular and Node.js based [web-app](#) on **GCP** and developed an [Android App](#) (Java).
- Displayed data from Yelp as per user demands to create reservations and maintained the reservation data across **sessions**.
- Integrated ipinfo, Google Geocoding, and various Yelp APIs to fetch and present results in a responsive manner.

Prioritization of Districts For COVID-19 Vaccine Administration | *Pandas, NumPy, Time Series* **Feb 2021-Aug 2021**

- Innovated a model that prioritizes regions for the distribution of the COVID-19 vaccine based on **8** parameters.
- Clustered 32 districts using the K-means, which used the output of the Forecasting model (**SARIMA**) as one of its inputs.
- Prioritized the resultant 6 clusters leveraging **Simple Additive Weighting**. Delineated policy for distribution of vaccine.

Classification of Fraud Calls by Intent Analysis of Call Transcripts | *NLTK, Oversampling* **Aug 2020-May 2021**

- Engineered a Machine Learning model that classifies fraud calls by Intent Analysis of nearly **2000** call transcripts.
- Performed text processing on the data by removing punctuations and stop words, converted digits to words and stemming.
- Attained an accuracy of **97.21%** after resampling the data and classifying it utilizing Naïve Bayes and CNN ([DOI](#)).

College Pro | *Java, Inheritance, Encapsulation, Firebase, Android Studio, Git* **Jun 2020-Oct 2020**

- Proposed an app where students can keep track of all college events and assessments, and admins can update events.
- Structured Firebase to store the user, events, and favorites details and followed Object-Oriented Programming paradigm.
- Implemented real-time **data synchronization** so that users can receive notifications for upcoming events.

Car Rental System | *C++, Boost, SQL* **Aug 2019–Dec 2019**

- Single-handedly made a platform to rent cars for some time with an admin dashboard and report generation features.
- Implemented features such as user login, car inventory management, reservation system, and notification system.
- Optimized code to ensure seamless handling of large volumes of data and multiple requests concurrently.

HONORS AND INVOLVEMENT

Contributor, Machine Learning Domain, Girlsript Winter of Coding 2021
Made 5+ open-source contributions to Girlsript Winter of Coding 2021 to construct the largest multilingual repository.

CS@SC Teaching Assistant at USC Viterbi K-12 Center, taught Java, Python, Game Development, and Robotics.