

# Umair Karel

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## EDUCATION

**Dr. Babasaheb Ambedkar Technological University**

**Raigad, Maharashtra, India**

*Bachelors of Technology (B. Tech) in Computer Science*

*2019 - 2023*

## TECHNICAL SKILLS

**Programming Languages:** Python, JavaScript, Java, C

**Lib/Frameworks:** Django, Django RestFramework, Flask, Celery, Sklearn, Pandas, Numpy, OpenCV, Tensorflow, BeautifulSoup, ReactJs, NodeJs, ExpressJs

**Tools/Platforms:** Git, Docker, Nginx, Linux, AWS

**Databases:** MongoDB, PostgreSQL, Redis, ElasticSearch

## EXPERIENCE

### Software Engineer

*Sarvaha Systems Pvt. Ltd.*

*July 2023 - Present*

- Working on HIDS system, Responsible for re-engineering and developing front-end & back-end for the existing HIDS system to achieve customized features.
- Worked on machine learning-driven solution to forecast stock market indices, utilized advanced ML techniques including bagging, stacking, and meta-labelling.
- Achieved good predictive accuracy by incorporating diverse features, including historical prices, prices of top influential stocks, and external factors into the modeling process.

### Software Engineering Intern

*Sarvaha Systems Pvt. Ltd.*

*Jan 2023 - June 2023*

- Designed and implemented a production-ready micro-service using Flask to scrape data from websites and store it in a MongoDB database. This API leveraged containerization for improved deployment and scalability.
- Integrated Celery and Redis to handle scraping tasks asynchronously, enhancing API performance by offloading time-consuming tasks.
- Integrated cron functionality to automate data scraping at regular intervals, ensuring up-to-date information retrieval every 24 hours without manual intervention.
- Enforced best practices throughout the project by employing Poetry dependency management, linter and formatting with automated enforcement via git commit hooks.

### Backend Developer Intern

*Medpiper Technologies Pvt. Ltd.*

*Oct 2021 - Apr 2022*

- Led the Engineering and maintenance of the Backend for two projects, JournoMed and CRM, using Django and Flask frameworks.
- Implemented REST APIs using both PostgreSQL and MongoDB as databases with the latest database design and management practices.
- Documented all API endpoints to ensure smooth and efficient communication across the team.

## PROJECTS

### Dermata

- Developed a deep learning model for detecting skin diseases utilizing image analysis techniques.
- Achieved optimal accuracy of 80% on the test dataset by implementing transfer learning techniques, utilizing VGG19 as a feature extractor and training an Artificial Neural Network (ANN) for classification
- Implemented a REST API to serve the trained model, and Extended the functionality by developing an Android application, allowing users to upload images of infected areas, and receive real-time results.

### EpicScribe

- Designed and Developed REST API based Backend with Django and PostgreSQL, for a EpicScribe - Blog App.
- Added extra authorization layer to validate the blogs written by the users.
- Implemented all the basic endpoints along with JWT authentication and role-based access control.

## ACHIEVEMENTS

- **First rank** in college coding competition with 100+ participants.
- **Second rank** in online coding competition with 75+ participants.
- Certified with **Postman Student Expert** Badge.
- Certified with **Cloud Computing 101** AWS Badge.