ARCHIT RATHOD

Website Email LinkedIn GitHub Scholar

EDUCATION

University of Mumbai (Thadomal Shahani Engineering College) **August 2020 – June 2024 (Exp.)**
Bachelor of Engineering in Information Technology *Agg. CGPA 9.37 / 10*

EXPERIENCE

SimPPL **April 2023 – Present**
Research and Web Engineer *Remote (New York)*
- Utilized YouTube Data API to analyze videos, extracting insights and creating network graphs for visualization. Automated data collection, processing, and storage through pipelines on virtual machines using Google Cloud Platform.
- Modified website structure, incorporating multiple pages and implemented a dynamic news segment. Deployed the website on Vercel and conducted API testing. **Live**
- Successfully contributed to a grant proposal accepted by YouTube Research, resulting in a 5x increase in the organization's API limit.

Kaizen Future Tech **June 2021 – July 2021**
Research Intern *Mumbai, Maharashtra*
- Built IoT projects using Arduino and Node MCU CPUs on virtual software like TinkerCAD and Proteus. Learnt Arduino Programming in C/C++ and different sensors used in solving real-life problems.
- Worked on automation tasks for detecting natural calamities by intersecting IoT and Deep Learning.

RESEARCH AND PUBLICATIONS

A. Surve, A. Rathod, M. Surana, G. Malpani, A. Shamraj, S. Sankepally, R. Jain, S. Mehta, **Multi-Agent Simulators for Social Networks** – Multi-Agent Security (MASEC AI) Workshop, NeurIPS 2023 **ArXiv**

A. Rathod, V. Pariawala, M. Surana, K. Saxena, **Leveraging CNNs and Ensemble Learning for Automated Disaster Image Classification** – Springer Book Series 'Algorithms for Intelligent Systems', ICSISCET, 2023 **ArXiv**

M. Parker, N. Patil, A. Rathod, M. Surana, A. Surve, P. Banerjee, R. Jain, S. Mehta, **Deploying Large Language Model Chatbots for Indic Languages in Low-Resource Regions** Working Paper, November 2023

M. Surana, V. Pariawala, A. Rathod, J. Tiwari, S. Shaikh, **Cross Lingual Text-to-Video Synthesis of Press Information Releases** – Working Paper, November 2023

PROJECTS

Attire.AI | *Stable Diffusion, LoRA, LLama, VGGNet, ZoeDepth, Fast API, Next.js, Tailwind* **GitHub**
- A conversational fashion outfit generator that enables users with interactive features such as adding clothing items to images and receiving tailored fashion recommendations using Generative AI.
- Offered a dynamic fashion experience through a canvas interface and chatbot, allowing users to explore, enhance, and innovatively personalize their fashion choices.

Social Vision | *TF-IDF, Support Vectors, LSTM, Fast API, Tweets Dataset, Next.js, Tailwind, MongoDB* **GitHub**
- Developed a graph-based model to identify coordinated inauthentic behavior on Twitter by connecting users who consecutively post the same content within a time threshold.
- Implemented agenda and propaganda detection of coordinated Twitter networks, achieving 94.6% accuracy, along with fake news identification with an F1-Score of 93.1%.

Ascend.AI | *Librosa, OpenCV, LLama, Next.js, Tailwind, MongoDB* **GitHub**
- It aims to revolutionize interview preparation by leveraging an audio sentiment analysis model with an accuracy rate of 81%, aiming to boost communication skills and confidence.
- Incorporated real-time feedback and video mock interview evaluations to provide a personalized coaching experience, achieving an accuracy rate of 97.2%.

FitSphere | *OpenCV, OpenAI, Fast API, Next.js, Tailwind, Node.js, Food API, Google Fit API, MongoDB* **GitHub**
- FitSphere is an all-encompassing Fitness app that reduces manual human intervention required in health and fitness tracking.
- Offering features like exercise posture monitoring, AI chat-bots, synchronization with any smartwatch, calorie monitoring, and customized diet plans based on their health conditions and dietary preferences.

TECHNICAL SKILLS

Languages: Javascript, Typescript, Python, C++, HTML
Tools/Frameworks: Numpy, Pandas, Sklearn, OpenCV, React.js, Node.js, FastAPI, Next.js, Git, Github, jQuery, Tailwind
Databases: MySQL, MongoDB, BigQuery, Neo4j
Devops: Vercel, Google Cloud Platform(GCP), Docker, Vertex.AI

EXTRACURRICULAR ACTIVITIES

Participation in 10+ hackathons and won in 6 of them. **Certificates**
Conducted a React.js Crash Course named 'React Zero-to-Hero' under the HoD of IT department.
Gave an invited talk at a Fellowship backed by Google Research and Mozilla on the YouTube Data Project. **Details**
Created an Open Source Project to learn Data Structures and Algorithms in a fun way. **Demo**