

MOKSHIT SURANA

[Email](#) [LinkedIn](#) [GitHub](#) [Scholar](#)

Education

University of Mumbai (Thadomal Shahani Engineering College)

August 2020 – June 2024 (Exp.)

Bachelor of Engineering in Information Technology

CGPA: 9.46

Experience

SimPPL

February 2023 – Present

Research Engineer

Remote

- Utilized YouTube Data API to analyze videos, extract insights, and create coordinated network graphs for visualization. Automated data collection, processing, and storage through pipelines on virtual machines using Google Cloud Platform, managing a vast dataset of 70 million comments across 440,000 videos, 1,600 channels, and 28,000 playlists.
- Key contributor to a successful grant proposal accepted by YouTube, leading to an impressive 5x increase in the organization's API usage limit.

Deutsche Bank

June 2023 – July 2023

Technology Intern

Pune, India

- Automated CSV file validation using SpringBoot and OracleDB, reducing process time by 96.7% by transitioning from manual workflow to database-driven automation.
- Developed SpringBoot application with itextPDF to automate customizable PDF generation from API inputs, improving efficiency over previous manual process.

Brand Innerworld

February 2024 – March 2024

AI Intern

Mumbai, India

- Created a RAG pipeline with Zephyr 7B and Mistral 7B model to perform data analysis on pharmaceutical market data and then use seaborn to visualise the analysis.
- Working on fine tuning GPT-4 on pharmaceutical market data to provide relevant market analysis to help make better business decisions.

Projects

Cross Lingual Text-to-Video Synthesis of-Government Press Releases | *Tensorflow, OpenCV, MoviePy*

GitHub

- Developed an end-to-end AI pipeline to automate video creation from PIB press releases, enabling one-click generation of multilingual videos using summarization, voiceover synthesis, and video rendering.
- Expanded accessibility and outreach of PIB press releases by building capabilities to synthesize videos in 12 regional Indian languages, including Hindi, Urdu, Gujarati, etc., using text-to-speech and translation.

Conversational Fashion Outfit Generator powered by GenAI | *Python, Stable Diffusion, LLaMA, LoRA*

GitHub

- E-commerce with Conversational AI, enabling natural user interaction, outfit customization, and trend-aligned recommendations using state-of-the-art models ControlNet and Densetpose.
- Innovated a personalized AI fashion generator, utilizing VGGNet to recommend new shopping suggestions based on past purchases.

Network Analysis | *NLTK, Transformers, FastAPI*

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%.

PhishFence | *FastAPI, Firebase, Langchain, SkImage, OpenCV, Selenium*

GitHub

- Developed an AI/ML-powered tool for automated detection of phishing domains using WHOIS databases and real-time URL fetching, integrating technologies such as FastAPI, LightGBM, and OpenCV for backend processing and analysis.
- Implemented advanced features such as block-to-block image comparison, typosquatting checks, and a user-friendly chatbot interface, enhancing the tool's accuracy in identifying phishing attempts and improving user interaction.

Technical Skills

Languages: Python, Java, HTML/CSS, JavaScript, SQL

Developer Tools: Google Cloud Platform, Git, GitHub

Databases: Qdrant, MongoDB, Neo4j

Frameworks: SpringBoot, FastAPI, TensorFlow, Scikit-Learn, Pandas, Numpy, HuggingFace, LangChain

Publications / Research

- A. Rathod*, V. Pariawala*, M. Surana*, and K. Saxena*. **Leveraging CNNs and Ensemble Learning for Automated Disaster Image Classification.** *Springer Book Series 'Algorithms for Intelligent Systems', ICSISCET*, 2023.
- N. Patil, G. Sathe, M. Surana, and D. Ingle. **Mechanism of Action: A comparative study.** *Springer Book Series 'Lecture Notes in Networks and Systems', ICTCS*, 2023.
- A. Surve*, A. Rathod*, M. Surana*, G. Malpani*, A. Shamraj*, S. Sankepally*, R. Jain*, and S. Mehta. **Multi-Agent Simulators for Social Networks.** *Multi-Agent Security Workshop, NeurIPS*, 2023.
- H. Ranka*, M. Surana*, N. Kothari*, V. Pariawala*, P. Banerjee*, A. Surve*, S. Sankepally*, R. Jain, J. Lalwani, and S. Mehta. **Examining the Implications of Deepfakes for Election Integrity.** *AI for Credible Elections workshop, AAAI*, 2024.
- N. Patil*, M. Parker*, M. Surana*, A. Surve*, R. Mehta*, R. Jain, J. Lalwani, and S. Mehta. **Deploying Large Language Model-based Chatbots for Indic Languages in Low-Resource Regions.** *Paper under review.*
- Aditya Surve*, Raghav Jain*, Mokshit Surana*, Sainath Reddy Sankepally*, Gautam Malpani*, Swapneel Mehta. **AI's Playdate with Youth Platforms: A Review of AI-Driven Content Moderation Techniques.** *Paper under review.*
- M. Surana*, V. Pariawala*, A. Rathod*, S. Nachane*, J. Tiwari, and S. Shaikh. **Cross Lingual Text-to-Video Synthesis of Press Information Releases.** *Working Paper.*

Leadership / Extracurricular

1. Hackathons

- Won 2 hackathons: Codeissance (TSEC Codestorm) and DataHack 2.0 (DJS-S4DS); consistently ranked in the top 10 teams.

2. Mini and Major Projects

- 1st prize in Machine Intelligence 2.0 mini project and runners-up in WebGenix'22 mini project.
- 3rd prize in the final major project competition.

3. Competitive Programming

- Achieved Knight Badge on Leetcode, currently in the top 5% in Leetcode contests out of over 0.5 million competitors.
- 1st position in TSEC Weekly Coding Challenges'23.

4. Fellowships

- Won a Google and Mozilla Grant of \$10,000 at SimPPL to create a fellowship where students contribute to projects based on LLMs, disinformation, and hate speech.

5. Clubs and Committees

- Student Mentor for First-Year Students.
- Core Team Member at Google Developer Student Club.
- General Body Member at Rotaract Club.