Rutwik Saraf

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Education

University of Florida **05/2025**
Master of Science in Computer Science *GPA: 3.44/4.0*
Relevant Coursework: Advanced Data Structures, Software Engineering, Distributed Operating Systems, Human-Computer Interaction, Database Management Systems

SCTR'S Pune Institute of Computer Technology, University of Pune **05/2023**
Bachelor of Engineering in Information Technology *GPA: 9.22/10.0*

Technical Skills

1. **Programming Languages:** C++, Java, Python, HTML, CSS, JavaScript, TypeScript, SQL
2. **Tools/Frameworks:** Bootstrap, React, Angular, NodeJS, Flask, Django, Flutter, Android Studio, REST, Git
3. **Platforms:** Oracle SQL Developer, Android Studio, MacOS, Windows, JIRA, Github, Jupyter

Experience

Voloridge Investment Management (Jupiter, Florida) **05/2024 - 08/2024**
Trading Engineer Intern
- Developed and integrated a trading widget for the Workspace Manager, an application used by traders at the firm, to enhance user experience. Utilized **React** and **TypeScript** to build a responsive and user-friendly interface. Implemented robust data fetching and request handling through APIs and employed **Zod** for rigorous user input validation.
- Collaborated closely with traders and product teams to gather requirements, address feedback, and deliver a solution tailored to user needs. Leveraged **JIRA** and **Kanban** methodologies to efficiently manage and track project tasks, ensuring timely completion of deliverables.

JyoSH AI (Pune, India) **08/2022 - 06/2023**
AI Intern
- Pioneered the development of a deep learning module and seamlessly integrated it into 2 platforms for an IoT and AI-powered agricultural Robot. Leveraged a microscopic camera for disease identification in cotton plants using Computer Vision techniques.
- Conducted a comprehensive comparative analysis of object detection models including **VGG16, Resnet50, and Inception V3**, achieving accuracies of 99.58, 85.03, and 95.38 percent respectively. This optimization significantly accelerated disease detection from leaf images. Successfully deployed the module on the Robot using Jetson Nano.
- Published a paper based on the research titled "Disease and Pest Detection in Crops using Computer Vision: A Comprehensive Study." in the 2023 European Chemical Bulletin.

Computational Linguistics Lab, PICT (Pune, India) **05/2022 - 02/2023**
Research Intern
- Fabricated a code-mixed dataset consisting of YouTube comments and WhatsApp chats accounting for 1009 sentences.
- Identified every sentence with language ID, POS tag, and sentiment(for various applications), annotated and preprocessed it. Performed sentiment analysis with an accuracy of 67.7 percent on the dataset using **SVM** and **Naive Bayes models**.
- Published a paper based on the research titled "Analysing The Sentiments Of Marathi-English Code-Mixed Social Media Data Using Machine Learning Techniques" at the 2023 ESCI IEEE Conference.

Projects

The Byte Brigade | ***LLM, VectorDB, Flask, OpenAI, Angular, Bootstrap*** **10/2023 - 11/2023**
- Revamped the website's user experience through the integration of conversational **GenAI**, enhancing navigation efficiency via a chatbot. Leveraging this chatbot technology significantly improved the onboarding experience for new users, reducing the number of user interactions by 60 percent.
- Implemented an adaptive user interface that dynamically adjusts in response to user queries within the chatbot, ensuring a tailored and interactive user experience. Our team was selected among the top 5 finalists of the Gator-AI Hackathon.

AGRO.AI | ***Python, React, Django*** **07/2022 - 08/2022**
- Developed a machine learning and **React-Django**-based web application that helps predict crop production in a particular area by considering 4 factors temperature, rainfall, humidity, and soil type.
- Remodeled the app to enable a farmer to calculate the total yield and estimate revenue to be generated.

Achievements and Certifications

1. My team achieved an **All India Rank 6** at the ABU Robocon 2020 Competition (PR and Marketing team lead)
2. Was among the top 20 projects for **Rackathon 2020** (Hackathon organized by Rakuten India) finale out of 6000+ teams
3. Competitive Programming Course by Girlscript Foundation (02/2021- 03/2021)