# Prakhar Verma

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### Education

# Vellore Institute of Technology, University

Bachelor of Technology - Computer Science and Engineering; CGPA: 8.64

Bhopal, India
Nov 2022 - present

# **Skills Summary**

Languages and Libraries: C++, , Python, Java, Typescript, Javascript, HTML5, numpy, pandas, scikit-learn, Matplotlib, CSS3, EJS, Jquery, PYQT5, Tkinter, Visual Basic

Tools and Softwares: Reactjs, Node.js, Express.js, MySQL, .NET 7, Ms-Excel, Jupyter Notebook, MATLAB, QtDesigner, Bootstrap, Visual Studio

# Experience

#### Quantitative Developer Intern—2Cents Captial

 $Quantitative\ Analysis,\ Software\ Development$ 

 $Jan\ 2025$  - Present

- Leading the end-to-end development of Synapse, a proprietary quantitative product designed to optimize trading strategies, enhance data-driven decision-making, and improve operational efficiency across the firm's workflows
- Delivered a high-impact product reveal pitch to investors, effectively communicating technical architecture, product capabilities, strategic business value, and securing stakeholder interest for future growth initiatives.
- Designing, backtesting, and deploying alpha strategies to drive portfolio diversification, improve risk-adjusted returns, and ensure robust performance under dynamic market conditions using advanced quantitative techniques.

# Projects

#### Multimodal Intention Detection through Paralinguistic and Visual Cues— Prof. Ram Kumar

School of Computer Science Engineering, VIT Bhopal

Sep 2024 - Ongoing

- Developed algorithms to detect human intentions by analyzing vocal cues—such as pitch, tone, and speech rate—using tools like Librosa and PyDub, advancing non-verbal communication analysis for more nuanced understanding of user emotions.
- Integrated RNNs and CNNs to merge paralinguistic audio features with visual data, significantly improving the accuracy of real-time emotion and intention detection systems for applications in customer service and virtual assistants.

# Finance Craft - Stock Prediction and analysis software— GitHub Link

HTML, CSS, Javascript, Random Forest, SVM Algorithm of Machine learning, SK learn Library

Aug 2023 - Oct 2023

- Built FinanceCraft, a web tool with HTML, CSS, JavaScript, and Node.js for real-time stock analysis and predictions.
- $\bullet \ \ \text{Applied ML algorithms (Random Forest, SVM, Linear Regression) for reliable stock trend forecasting from historical data.}$
- Leveraged Alpha Vantage and Yahoo Finance APIs for real-time data, enhancing insights with interactive visualizations.

# College Event Management And Rating System (CEMARS)— GitHub Link

React, MYSQL, Express, Node, Javascript, Python, Sentiment Analysis

April 2024 - May 2024

- $\bullet \ \ {\rm Developed} \ \ {\rm Unstop} \ \ {\rm solution} \ \ {\rm for} \ \ {\rm efficient} \ \ {\rm college} \ \ {\rm event} \ \ {\rm management}, \ {\rm fostering} \ \ {\rm competitiveness} \ \ {\rm among} \ \ {\rm clubs}.$
- Implemented attendance system with MySQL database and admin-side blog posting functionality.
- Stored and displayed user feedback in MySQL for improved event analysis in admin view.
- Conducted sentiment analysis on feedback to generate club rankings, enhancing performance transparency.

### Competitions and Workshops

# Ideathon, Artificial Intelligence Club, VIT Bhopal — Link:

 $December\ 2022$ 

• Designed an IOT Project in such a way that it contain sensors which help in object, color and text detection which helps a visually impacted person in indentification of objects, colors and reading articles

#### Girlscript Summer Of Code 2023:

Jun 2023 - Aug 2023

- Developed a responsive web page to display pet news, utilizing HTML, CSS, and JavaScript, while integrating a news API for dynamic content delivery and implementing styled components for enhanced user experience.
- Designed and implemented responsive web components for the UMatter platform, utilizing HTML, CSS, and JavaScript to create an engaging user interface, including a dynamic services page and a blog section fetching content via API integration.

# ISRO Experiencial Learning Program 2024, ISRO-NRSC Hyderabad :

September 2024

- Analyzed satellite design and functionality, focusing on communication and Earth observation mechanisms.
- Studied satellite imagery applications in agriculture and disaster management for effective resource monitoring.
- Gained skills in interpreting remote sensing data to support decision-making across various sectors.

# **Coursework Information**

Relevant Courses: Fundamentals of AI and ML, Data Structure and Algorithms with C, Introduction to problem solving, Applied Numerical Methods, Python Programming, Machine Learning, Database Management System(DBMS)

Online Courses: Python With Everybody (Coursera), Python Data Structure (Coursera), The Bits and Bytes of Computer Networking (Coursera)