Chinmay Deotale

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Education

- **Vishwakarma Institute Of Technology** Pune, India
  Bachelor of Technology - Electronics and Telecommunication; GPA: 8.87 *2019 - 2023*
  Courses: *Signal and Systems, Digital Electronics, IOT, Operating Systems, Data Structures and Algorithms, Computer Vision, Machine Learning, Databases, Web Development*

Technical Skills

- **Languages**: JavaScript, Typescript, Python, C++, SQL
- **Frameworks**: NodeJS, React-JS, ViteJS, Django, Keras, TensorFlow, OpenCV. Socket.io
- **Tools**: Docker, GIT, Jenkins, SonarCube, PostgreSQL, MySQL
- **Platforms**: Windows, Arduino, Raspberry, OPC-UA

Experience

- **Suzlon Energy Limited - Software Development Engineer** Aug 2023 - Present
  OPC-UA Data Collector:
  - **Technology**: Implemented a C-Sharp connector application leveraging OPC-UA server for real-time monitoring and control of 12,000 turbines.
  - **Approach**: Developed communication with turbines, subscribed to 50+ relevant data points, implemented control logic, and ensured error handling, security, and scalability.
  - **Impact**: Improved management and control of turbines for enhanced performance and reliability, facilitating better management and optimization of turbine operations.The average time to put errors on the screen reduced by 24%.

  Real Time Monitoring Dashboard:
  - **Technology**: Developed a real-time monitoring dashboard using React, Node.js, Express, Socket.io, and SQL.
  - **Role Based Access Control(RBAC)**: This granular control ensures that users have access only to the specific features and data relevant to their roles, optimizing workflow efficiency and data security across the platform.
  - **Docker-Jenkins CI/CD Integration**: Leveraged Docker containers for scalable deployment, orchestrated CI/CD pipelines with Jenkins, configured Nginx as a reverse proxy, Load Balancer, and SSL terminator, optionally integrating SonarQube for code quality analysis.
  - **Impact**: Single Monitoring Dashboard provides the Overview for Turbine in Good Condition, No production, In-error and Parked under Maintenance. Achieved a 20% reduction in error handling efforts by technicians, resulting in enhanced Key Performance Indicators (KPIs).
- **Aspect Ratio Inc. - Data Analyst Intern** July 2022 - Jan 2023
  Event-based Web Forecasting Model)
  - **Technology**: Developed a web application for the Future Market Forecasting Model using HTML, CSS, JavaScript, Django, and MySQL.
  - **Upgrades**: Enhanced performance with newly designed Excel-VBA algorithms, improving computation, handshake time, and page loading while bolstering security.
  - **Impact**: Implemented multiple reusable algorithms within the model and incorporated a template UI for easy replication of user journeys.

Projects and Publications

- **CHESS AI: Machine learning and Minimax based Chess Engine:** : Implemented a Fully functional Chess Engine with the novel approach of Machine Learning and AI-based Minimax Algorithm. Had 2 flow - Good move detection Model training and Game Handling. Game handling deals with playing against an AI with multiple depth in Minimax. Featured in the IEEE Journal ICONAT 2023
- **Pakdarphan(ISKCON Recipe Management System)**: Implemented the ISKCON Recipe Management System utilizing Django, React.js, and MySQL. The system boasts a user-friendly interface with multi-filter dashboards, detailed cooking instructions, ingredient information, and instructional videos. Introduced admin and user portals for seamless recipe management and browsing. Additionally, employed system diagrams for architecture and Figma for workflow design, enhancing user engagement and culinary exploration within the ISKCON community.
- **Vision-Based Detection of Household Furniture for Assisting Visually Impaired Persons**: For the vision-based detection of household furniture, Classical ML models such as Support Vector Machines (SVM) and Random Forests were employed. Data preprocessing involved techniques like noise removal, feature scaling, and dimensionality reduction to enhance model accuracy.Published in the ICONIC-2022 Scopus Indexed Journal, leverages computer vision technology implemented in Python, utilizing Raspberry Pi 3 and Pi-camera Module hardware

Awards and Hackathon

- Finalist At Airbus Aerothon 2023 among over 200 teams participated.
- Winner for ML Workshop at Inter-Institute competition where all SPPU institutes participated, showcasing expertise in machine learning.