ADARSH GADEKAR

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EDUCATION:

UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES, CA **Aug 2022-May 2024 (Exp)**
Master of Science in Computer Science GPA: 3.55/4.0
Coursework: Algorithm Analysis, Database Management Systems, Artificial Intelligence, Information Retrieval and Web Search Engines, Advanced Mobile Devices and Game Consoles, Machine Learning for Data Science, Innovations in Defense Application

VIDYALANKAR INSTITUTE OF TECHNOLOGY, MUMBAI, INDIA **Aug 2018-May 2022**
B.E. in Computer Engineering GPA: 3.75/4.0
Relevant Coursework: Algorithms and Data Structures, Database Management Systems, Multimedia System Design, Operating Systems, Web Technologies, Computer Organization and Architecture

SKILLS:

PROGRAMMING LANGUAGES: Python, C, C++, C#, Java, Javascript, Dart, Bash, SQL, NoSQL
WEB TECHNOLOGIES: HTML, CSS, Bootstrap, React, jQuery, Node.js, Next.js, Express.js, MongoDB, AWS
RELEVANT SKILLS: Pandas, NumPy, Seaborn, Tensorflow, NLTK, Scikit, Firebase, Power BI, Git, Flutter, PostgreSQL, Unity
CONCEPTS: Object Oriented Programming, Machine Learning, Artificial Intelligence, RDBMS, Game Design, Computer Architecture, Human Computer Interaction, Natural Language Processing, Theory of Computation

PROFESSIONAL EXPERIENCE:

ITOrizon Inc. | AI/ML Intern | Marietta, Georgia **Feb 2024-present**
- Orchestrated the deployment of Survival Analysis techniques within UCBOS's zero-code AI platform to advance predictive maintenance solutions for the manufacturing sector. Expertly integrated and customized the scikit-survival and Lifelines libraries to model equipment life expectancy, significantly elevating operational uptime through predictive analytics.
- Engineered a robust Data Drift Detection framework leveraging statistical hypothesis testing and machine learning-based anomaly detection. Implemented a system capable of identifying and reacting to data distribution changes, ensuring sustained model accuracy and performance over time.
- Developed a sophisticated Explainable AI (xAI) framework in a PySpark setting, customizing the LIME methodology to enhance model interpretability across various algorithms including LSTM, Multilayer Perceptrons, and both univariate and multivariate forecasting models, improving stakeholder comprehension of complex AI decisions, fostering increased transparency and trust.

Combustion Concepts Pvt. Ltd | Software Engineering Intern (ERP Team) | Mumbai, India **Nov 2023-Jan 2024**
- Enhanced overall system efficiency by 8% and improved web page load performance by 70% through strategic implementations of Redis caching and Redux for state management. Optimizations led to significant reductions in server response times and client-side rendering delays, elevating user experience and application performance.
- Ensured secure and compliant access to sensitive ERP data for authorized personnel using Axios Interceptors, effectively implementing advanced authentication and authorization mechanisms to safeguard data integrity and privacy.
- Optimized asynchronous data fetching by 30% with RTK Query in Redux Toolkit, significantly improving system responsiveness. Streamlined state management and reduced latency, enhancing the overall efficiency and user interaction with the system.

TCR Innovation | Data Science Intern | Mumbai, India **Jun 2021-Aug 2021**
- Predicted 120,000 used car prices for optimizing business by deploying machine learning algorithms with an accuracy of 96% leading to 20% profitability using Power BI, Pandas, Numpy and ScikitLearn.
- Developed HR analytics model with statistical analysis, boosting employee satisfaction by 11%. Revamped recruitment using data-driven strategies. Achieved 30% productivity gain through SQL, Power BI, and Python Libraries.
- Designed a Next Word Prediction LSTM neural network in TensorFlow, achieving an impressive 87% accuracy in classifying and processing time series data, while enhancing predictive capabilities.

PROJECTS:

Light Your Way – 2D Game | Unity, Unity Web Service, WebGL, C# **Aug 2023 - Dec 2023**
- Engineered and launched a 2D platformer with unique shape-transform mechanics, captivated gamers achieving a 90% positive engagement score through iterative user feedback and gameplay adjustments.
- Leveraged comprehensive analytics and structured A/B testing to refine game features, resulting in a 20% uplift in core engagement metrics and a 12% increase in players' cognitive retention.
- Implemented heuristic AI to dynamically adjust game difficulty, enhancing player retention by 25% through targeted level design optimizations based on player data analytics.

Trojan Trek Blog - Website | React, MongoDB, Express.js, Node.js, HTML, CSS **Oct 2022 - Dec 2022**
- Drastically improved web page responsiveness by 70% and user engagement by 35% by architecting and integrating Redux for optimized state management across the platform.
- Overhauled user experience by redesigning site navigation and utilizing MongoDB for enhanced data storage and authentication, which collectively reduced user bounce rates by 40%.
- Enhanced website performance by 30% through the strategic deployment of AWS S3 for efficient image handling, thereby reducing load times and streamlining user interactions.

Konnect – Mobile App Development | Flutter, Dart, Firebase, WebSocket, Figma, REST API **Jan 2022 - May 2022**
- Spearheaded the development of a cross-platform college networking app for Android and iOS, facilitating skill-sharing among 2000+ students and fostering a collaborative academic environment.
- Designed and integrated real-time messaging functionality using WebSocket, which halved message delivery times and significantly improved communication efficiency among users.
- Architected and implemented a REST API to enhance data management and user experience, which led to a 75% increase in user satisfaction by ensuring seamless data flows and interface interactions.