ADARSH GADEKAR

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EDUCATION:

University Of Southern California, Los Angeles, CA   **Aug 2022-May 2024**

Master of Science in Computer Science

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**

Bachelors of Engineering in Computer Engineering

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, Java, Javascript, Dart, Bash, SQL

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, RESTful API Development, LangChain, LangSmith, Streamlit

Concepts: Object Oriented Programming, Machine Learning, Artificial Intelligence, RDBMS, Human Computer Interaction, Natural Language Processing, RAG, LLM

PROFESSIONAL EXPERIENCE:

Nile Studios | Backend and LLM Intern | Oakland, California   **Aug 2024-Present**
- Enhanced **LLM**-based chat functionality, increasing link accuracy from 50% to 70% and improving user experience.
- Developed and optimized **RESTful APIs** for efficient data retrieval, boosting backend performance.
- Integrated Retrieval-Augmented Generation (**RAG**) application, enriching AI-driven interactions with more accurate responses.

ITOrizon Inc. | AI/ML Intern | Marietta, Georgia   **Feb 2024-Apr 2024**
- Deployed Survival Analysis in a zero-code AI platform, integrating scikit-survival and Lifelines, boosting uptime by 30%.
- Built a Data Drift Detection framework with real-time monitoring UI, ensuring continuous data integrity.
- Developed **Explainable AI** in **PySpark**, customizing **LIME** for **LSTM** and **Multilayer Perceptrons**, improving stakeholder understanding by **50%**.

Combustion Concepts Pvt. Ltd | Software Engineering Intern (ERP Team) | Mumbai, India   **Nov 2023-Jan 2024**
- Increased **efficiency by 8%** and **load speed by 70%** using **Redis caching** and **Redux,** reducing server response times.
- Secured **ERP data** with **Axios Interceptors**, ensuring advanced authentication and authorization.
- Optimized data fetching by **30%** with **RTK Query** in **Redux Toolkit**, improving responsiveness and reducing latency.

TCR Innovation | Data Science Intern | Mumbai, India   **Jun 2021-Aug 2021**
- Predicted **120,000** used car prices with **96%** accuracy, increasing profitability by **20%** using **Power BI** and **ScikitLearn**.
- Boosted employee satisfaction by **11%** and productivity by **30%** through HR analytics using **SQL**, and **Python Libraries**.
- Designed **LSTM neural network** in **TensorFlow**, achieving **87%** accuracy in next word prediction and enhancing predictive capabilities.

PROJECTS:

Document Q&A and Summarization System | Langchain, Cosine Similarity, FAISS   **May 2024 - Jun 2024**
- Implementing **cosine similarity** with dynamic document chunking, optimizing retrieval of relevant context for Q&A tasks across multi-page documents.
- Enhanced summarization quality through adaptive **prompt engineering** ; integrated real-time **ROUGE/BERT** Score monitoring with LangSmith.

CSV Intelligence System – Interactive Q&A | Streamlit, Langchain, LangSmith   **Apr 2024 - Jun 2024**
- Boosted query accuracy and speed by using Data-Augmented Generation (**DAG**) to inject relevant CSV data into prompts for precise, context-driven answers.
- Optimized performance by 25% with **LangSmith**, **LRU caching**, and query normalization, reducing response time by 30% and ensuring scalability.

Pente Game – Artificial Intelligence | Python3, NumPy   **Mar 2023 - Apr 2023**
- Implemented **minimax algorithm** with alpha-beta pruning, significantly improving decision-making speed and efficiency, enhancing overall gameplay.
- Developed strategic **heuristics** and adaptive **depth-limiting mechanism**, reducing processing time by **95%** and achieving **85%** win rate against human players.