Yusuf Wadi

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EDUCATION

University of Texas at Dallas Richardson, TX
Bachelors of Science in Computer Science Aug 2020 – Dec 2023

- Courses: Machine Learning, Artificial Intelligence, Automata Theory, Adv. Algorithms, Computer Architecture, Statistics, Linear Algebra

WORK EXPERIENCE

Monoware Studios Richardson, TX
FullStack Intern May 2022,23 – Aug 2022,23

- Gained comprehensive insight into the end-to-end web design process
- Mastered the development of web applications using foundational technologies, including vanilla Vue and Nuxt.
- Proficiently employed CSS and TailwindCSS for styling purposes, enhancing the visual appeal and user experience of the web applications.
- Engineered a chatbot solution that seamlessly integrates with a PDF backbone, providing efficient assistance and support to clients, netting a 10000% increase in user productivity
- The experience at Monoware Studios provided a valuable opportunity to enhance skills in JavaScript, TypeScript, Python, and Pinecone technologies while gaining hands-on exposure to real-world web development challenges.

RESEARCH

Neural Radience Field 3D Scene Capture to VR Pipeline Analysis Jan 2023 – May 2023

- Research Repository: nerf-or-nothing
- Analysed and researched multitudinous NeRF capture methods on a variety of environments

PROJECTS

End-to-End LLM Backed Therapy Chatbot (therapt) Aug 22–Sept 22 / Dec 2022

- Conceived and realized a therapy chatbot, taking it from conceptualization to a fully functional product, incorporating a vast dataset of 200,000 lines of transcript data obtained through a custom-built web scraping algorithm.
- Initiated the project by prototyping it using Python, ensuring its feasibility and functionality before moving forward to be completed with TS and deployed on a Linode server

Speech-Driven Virtual Assistant (idaw) Sept 2022 – Nov 2022

- Engineered an interactive voice-driven assistant powered by a custom finetuned Language Model (LLM) to accurately interpret user intentions from speech input.
- Applied advanced natural language processing techniques to enable the assistant to understand and respond effectively to a variety of user queries.
- Developed a multifunctional program with diverse capabilities, including the ability to launch games from users' Steam libraries.
- This project showcases my expertise in natural language processing, custom LLM training, and software development, highlighting my proficiency in creating interactive and practical solutions for enhanced user experiences.

High Frequency Low Latency Trading Algorithm (pyready_trader_go) Mar 2023

- Orchestrated and guided a team of three individuals in the formulation of low latency trading algorithms as part of the Optiver RTG project.
- Designed and implemented algorithms aimed at optimizing profit generation while strategically mitigating risk, utilizing comprehensive financial time series data.
- Leveraged the power of Apache Spark and Hyperopt to parallelize trials, resulting in an impressive 9x acceleration in algorithmic performance.

Language Model Based Presentation Generation Streamlit App (powerslides) May 2023

- Created a Streamlit application powered by a Language Model (LLM) for the purpose of presentation generation.
- Deployed the application on Google Apps, making it accessible to the public for a period of time at pwrslides.com.
- Designed the app to generate .pptx files from user prompts, enabling efficient and automated presentation creation.
- This project showcases my proficiency in natural language processing, web application development with Streamlit, and deployment on Google Apps, underscoring my ability to create user-friendly and innovative solutions for practical use.

Interactive Chess Visualizer App (chess_vis) Aug 2023

- Engineered an engaging and interactive Chess Visualization tool utilizing Python and an object-oriented programming approach.
- Designed to empower users with the ability to visualize and analyze chess games in real-time.
- This project underscores my proficiency in Python programming, object-oriented design, and my capability to create applications that facilitate dynamic and insightful user experiences.

SKILLS

Languages: Python, Java, C++, Verilog, HTML, CSS, JavaScript, Node JS, Shell Script, Bash Script, Linux/Unix commands, SQL, Markdown
Machine Learning: PyTorch, TensorFlow, Scikit-learn, Pandas, Numpy, Spark, MLFlow, Plotly, Matplotlib, Apache Spark, Hyperopt, tinygrad
Development: Web Development, Flask, Django, Streamlit, Git, Docker, MLOps