Joseph Wicorek

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EDUCATION

University of Washington, Information School

Bachelor of Science in Informatics, Concentration: Software Development/Data Science

Projects

AI Health Connect | *TypeScript, SQL, TailWind, Supabase, ReactJS, Vite*

- Engineered a virtual clinic platform delivering 5 AI-powered features with 100% provider satisfaction in pilot testing.
- Integrated OpenAI LLMs to build AI driven decision support tools, reducing manual workload and enhancing treatment accuracy for over 50 simulated patient interactions.
- Implemented HIPAA-compliant backend infrastructure with role-based access, TLS encryption, and audit logging ensuring secure handling of patient data.

NBA Performance and Strategy Analytics | Python, Pandas, Matplotlib, Seaborn, Pytorch Winter 2024

- Built a predictive analytics model using 20+ years of NBA data to analyze player stats and game outcomes, increasing prediction accuracy by 30%
- Designed a data pipeline that processed 500K+ records using Pandas and Statsmodels, reducing preprocessing time significantly.
- Visualized advanced metrics like PER, usage rate, and win shares using Matplotlib and Seaborn to uncover performance trends and support strategic decision-making.

Railroad Safety Protocol | *R*, *Shiny*

- Built an interactive Shiny dashboard visualizing 215K+ U.S. railroad incident records by state, cause, and time period to uncover safety patterns.
- Implemented user-controlled filters, heatmaps, and time-series plots to enable custom analysis of derailments, equipment failure, and hazardous material leaks.
- Cleaned and standardized raw data with dplyr and lubridate, improving accuracy in temporal trend analyses and reducing data wrangling time by 30%

Know Your Terms | *Python*, *TypeScript*, *HTML*, *CSS3*, *NodeJS*

- Developed a browser based platform that parses Terms of Service using NLP techniques to flag confusing or potentially exploitative clauses.
- Created a grading algorithm based on legal readability and fairness, allowing users to compare agreements across different sites.
- Implemented a fully responsive frontend in React with real time analysis and a REST API backend, ensuring performance across devices.

Internship Database | SQL, TSQL

- Designed a normalized relational database schema to manage 2,000+ internship applications, optimizing storage and query efficiency.
- Authored advanced SQL queries using subqueries, JOINs, and aggregate functions to uncover trends in application success and company preferences.
- Created custom views and analytical queries to summarize application volume, seasonal demand, and offer rates.

EXPERIENCE

Software Engineer

Outlier AI

- Ran A/B testing on AI-generated outputs and fine-tuned evaluation criteria boosting response quality by 15%.
- Developed and evaluated AI-generated code, ensuring accuracy and efficiency in alignment with requirements.
- Created and assessed technical prompts and responses, contributing to the training of AI models.

Technical Skills

Languages: Python, JavaScript, TypeScript, R, SQL, HTML5, CSS3 Frameworks & Libraries: ReactJS, NextJS, NodeJS, Vite, Bootstrap, ExpressJS, Shiny, NumPy, Matplotlib, Pytorch Tools & Platforms: Postman, Git, Azure, PowerBI, Figma, Miro Databases & APIs: Firebase, Supabase, PostgreSQL, OpenAI, REST APIs

Fall 2023

May 2024 - Present

Seattle, WA

Winter 2025

Seattle, WA

2025

Fall 2024

Winter 2023