Joseph Wicorek

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Education

University of Washington, Information School — Seattle, WA

Bachelor of Science in Informatics, Concentration: Software Development/Data Science — *March 2025*

Projects

AI Health Connect | *TypeScript, SQL, TailWind, Supabase, ReactJS, Vite* — Winter 2025

- Engineered a virtual clinic platform using React, TypeScript, Supabase, and SQL, 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 enhaning treatment accuracy for over 50 simulated patient interactions.
- Implemented HIPAA-compliant backend infrastructure with role-based access, TLS encryption, and audit logging to support Medicaid-aligned data practices.

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* — Winter 2023

- 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* — Fall 2024

- 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* — Fall 2023

- 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 — May 2024 - Present

Outlier AI — *Seattle, WA*

- Conducted A/B testing and refined ML model outputs, improving performance by 15%.
- Built scalable, data-driven solutions, reducing project timelines
- Analyzed 10GB+ datasets, enhancing client decision-making efficiency

Technical Skills

Languages: Python, JavaScript, TypeScript, R, SQL, HTML5, CSS3
Frameworks: ReactJS, NextJS, NodeJS, PostgreSQL, VueJS, Vite, Django, Bootstrap, ExpressJS, Shiny, Supabase
Developer Tools: Postman, Git, Supabase, Azure, PowerBI, Figma, Miro
Libraries: NumPy, Matplotlib, Pytorch, Firebase