

Winston E. Chiong

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Education

- Aug 2021 - May 2024 **University of California, Berkeley**, B.S., Civil Engineering
- Operating Systems, Computer Networking, Data Structures & Algorithms, Machine Structures, Data Science Techniques & Principle, Applied Optimization, Probability for Data Science, Electric Mobility Engineering, Data Science for Energy

Projects

UC Berkeley EV Charging Dashboard

- A feature-rich data dashboard providing real-time visualization, analysis, and exploratory statistics of 4+ years of historical on-campus EV consumption.
- Created cloud-based data and machine learning pipelines, asynchronously processing data cleaning, usage forecasts, and hyperparameter cross-validation.

Multithreaded HTTP Server

- A minimal HTTP server. Uses sockets and threads to concurrently handle HTTP requests. Tracks the number of requests for a given response code in a thread-safe manner.

Spam Email Classifier

- Implemented a logistic regression estimator in Python to classify spam emails; Scraped the subjects and text bodies of real-world emails to populate the training and validation sets and used visual metrics (i.e. ROC curve) to determine performance.

Skills

- Languages: Python (Plotly, Dash, pandas, sklearn, Flask), Java, Javascript (React.js, Redux, Next.js, Three.js), Typescript, HTML, CSS (Bootstrap, Tailwind), SQL, Java, C, C# (.NET), Rust
- Technologies: Git, Docker, Redis, PostgreSQL, MySQL, MongoDB, RabbitMQ

Experience

- July 2024 - Present **Software Engineer**, Tesla Motors — Fremont, CA
- Contributing to Tesla Track, an internal employee tool responsible for tracking and scheduling hours, requesting time off, payroll, and external integrations for 100k+ employees.
 - Deployed this service in multiple factory locations across the globe. Working with .NET & React to develop and maintain microservices and a global user interface.
- May 2023 - Aug 2023 **Data Science Intern**, West Monroe — San Francisco, CA
- Contributed to building out a proof-on-concept decision tree model aimed at increasing financial arrangement accuracy by reverse engineering insurance rules. Processed 26M rows of claim lines with \$2M in annual opportunity.
 - Collaborated within the Generative AI lab to contribute to the development of an internal web application using React.js, aimed at visually evaluating LLM's.
- Jan 2023 - May 2023 **Software Engineering Intern**, Collins Aerospace — Windsor Locks, CT
- Developed three full stack Windows applications with Visual Basic, C# and Microsoft SQL Server utilized by industrial engineers and shop floor mechanics, improving efficiency and data accuracy.
 - Migrated team website from PHP to React.js and CSS Bootstrap, adding mobile responsiveness and 30+ embedded dashboards using the Tableau REST API.
 - Implemented a Python parser within Apache Airflow, facilitating the extraction and transformation of shop floor machine data for integration into Tableau visualizations.
- May 2022 - Aug 2023 **Undergraduate Researcher**, University of California, Berkeley — Berkeley, CA
- Conducted literature review on peak power prediction, analyzing a wide range of machine learning techniques, e.g., time series analysis, regression, random forests, k-Nearest Neighbors, and their performance in predicting peak power demand.
 - Cleaned, visualized, and performed exploratory data analysis for 3 years of on-campus EV charging data, applied a wide gamut of machine learning models to forecast power demand, resulting in increased pricing optimization and reduced operating cost.

Activities

- Feb 2023 - Feb 2024 **Cal Hacks**, Sponsorships & Logistics Director — University of California, Berkeley
- Organization of the largest collegiate hackathon, attracting 1400+ attendees. Sourced contacts for sponsorship. Ran logistics, e.g., venue sourcing, merchandise ordering, judging, volunteering, and catering.