Vicky Ye

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EDUCATION

University of Washington - Paul G. Allen School School of CSE — Seattle, WA
Bachelor of Science in Computer Science - Data Science, Minor in Statistics, 3.78 GPA — *Grad. June 2026*
Relevant Coursework: Machine Learning, Data Structures, Software Tools, Intro to AI, and more!

EXPERIENCE

ML Research Intern — June 2023 – Present
University of Toronto — *Toronto, ON, Canada*
- Performed data analysis and visualization for ML models on clinical trial data, with the use of scikit-learn, pandas, matplotlib, and seaborn.
- Communicated progress with stakeholders at the S.T.A.R.T. Clinic for Mood & Anxiety Disorders in Toronto during monthly meetings
- Investigated factors of Major Depressive Disorder (MDD) that best predict the efficacy of antidepressant drug interventions under the guidance of Professor Mark Chignell and his graduate student Dr. Lu Wang
- Implemented doubly robust policy learning with decision trees achieving 68.9% policy reward through 5-fold cross-validation; identified 3 key clinical predictors for personalized medicine approach in treating MDD.

Undergraduate Research Assistant — June 2024 – March 2025
University of Houston — *Houston, TX*
- Trained and evaluated ML models to predict delirium in hospitalized patients using the GEMINI dataset and investigated model stability over time with explainable AI metrics, mentored by Assistant Professor Lu Wang.
- Co-authored "Can Physician Expertise Improve Machine Learning Identification of Delirium?: Towards Trustworthy AI in Healthcare" to the Journal of American Medical Informatics (JAMIA) – pending peer review

PROJECTS

calorific | *React, Next.js, Python, TailwindCSS, Clerk, Git* | Devpost, GitHub — January 2025
- Developed on the front-end, a web-based app that allows users to scan food with their phone camera and receive calorie count and ingredient lists–recognized as category finalist in nwHacks '25 for the Gen AI track.
- Learned and used Llama3.2-vision for food identification and text output.

pickle.ai | *Python, LangChain, Flask, React, Figma, MongoDB, Next.js, ShadCN UI, Git* — October 2024
- Created a Chrome extension that uses Retrieval-Augmented Generation with LLM models fine-tuned specifically for competitive programming and algorithmic questions, which allows for more precise responses that target each individual LeetCode problem.
- Used Jupyter Notebook for back-end connections for Retrieval-Augmented Generation in MongoDB.

Air Quality Gauging Website | *Render, APIs, HTML/CSS/JavaScript* — September 2023
- Deployed a website on Render that tracks real-time air quality index (AQI) and offers tailored health recommendations using Weather, OpenAI, and AQI APIs
- Calculated the values of common air contaminants using particulate data

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript, HTML/CSS, R
Frameworks: React, Next.js, Flask
Libraries: pandas, NumPy, Matplotlib, scikit-learn
Other: Figma, Tableau