Daniel Hu

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WORK EXPERIENCE

Data Engineer & Analyst | ESDC (Gov. of Canada) | Ottawa, ON (Hybrid)   April 2025 – August 2025
- Incoming Data Engineer & Analyst on the Data Engineering and Data Insights team for Summer 2025.

Software Engineering Intern | Tramona | Seattle, WA (Remote)   October 2024 – April 2025
- Developed a dynamic scraper to pull listings from travel sites, improved market reach by crawling social media platforms for travel discussions, and integrated a Llama AI chatbot to enhance customer support.
- Designed full-stack platform features in a 1000+ file codebase using Next.js, TypeScript, SQL, and Python.
- Implemented email systems to send real-time reminders to 100% of current customers, boosting retention.

Generative AI Engineer | Outlier | San Francisco, CA (Remote)   August 2024 – October 2024
- Engineered and fine-tuned scalable AI training pipelines using Java, Python, C, JavaScript, and TypeScript to ensure robust architecture, enhance efficiency, and maintain reproducibility across 10+ model applications.
- Improved generative AI accuracy by critically analyzing 50+ prompts, reducing hallucinations by 5%, ranking AI-generated code quality, refining response relevance, and retraining models to address performance gaps.

Data Science Intern | GE Vernova | Hangzhou, ZJ (On-site)   July 2024 – August 2024
- Automated Bill of Materials management with VBA, reducing execution time from 5 hours to 5 minutes, eliminating manual errors, and enabling accurate real-time data updates for the entire manufacturing plant.
- Streamlined workflows by automating weekly bonus reports and machining plans, and creating Smartsheet scripts to enhance safety, track metrics, and improve product quality, boosting department efficiency by 2x.
- Proposed DIY cart designs for machine operations, one adopted factory-wide as it cut overlap time by 30%.

PROJECTS

Marketwire | Python, FastAPI, BS4, Supabase, Next.js, React, TypeScript, Tailwind CSS | 🔗 *Source Code*
- Smart investing platform that scrapes and analyzes real-time news sentiment to automate trading actions.

Study Buddy (Project Leader) | Python, Django, Flask, SQLite, JavaScript, HTML, CSS | 🔗 *Source Code*
- Uses the K-Means clustering algorithm to match students by goals, courses, availability, and learning styles.

F1 Strategy Master | Python, Scikit-Learn, Pandas, PostgreSQL, Node.js, Chart.js, CSS | 🔗 *Source Code*
- Predicts F1 race outcomes with the Random Forest Classifier and analyzes race data with stats and charts.

Object Detection Algorithm (99% Confidence Score) | PyTorch, CNNs, DarkNet, YOLO | 🔗 *Source Code*

EDUCATION

University of Waterloo | Bachelor of Mathematics | Dean's Honours   Expected April 2028
Stanford University (Coursera) | *Algorithms*, *ML*, and *DL* Specialization   Completed December 2024

EXTRACURRICULARS

Data Science Mentor | University of Waterloo Data Science Club | 8-hour weekly commitment
Varsity Badminton Player | 4x National Medalist | 20x Provincial Medalist | 15-hour weekly commitment

TECHNICAL SKILLS

Languages: Java, Python, C, VBA, HTML, CSS, JavaScript, TypeScript, SQL, React, Racket, Git, Node.js, Next.js, EJS
Technologies: Jupyter, TensorFlow, Keras, Excel, Vercel, GitHub, VSCode, NetBeans, Figma, Smartsheet, SolidWorks