

Daniel Hu

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WORK EXPERIENCE

Data Engineering Intern (Incoming) | ESDC | Ottawa, ON (Hybrid) April 2025 – August 2025

- Incoming intern on the Data Engineering and Data Insights team for Summer 2025.

Software Engineering Intern | Tramona | Seattle, WA (Remote) October 2024 – April 2025

- Developed scrapers to pull 50000+ travel listings and expanded market reach by crawling media platforms.
- Designed full-stack platform features in a 1000+ file codebase using Next.js, TypeScript, SQL, and Python.
- Integrated a Llama AI chatbot via transfer learning on Hugging Face to autonomously handle 50% of client support tickets and implemented a real-time email reminder system to improve customer retention by 33%.
- Created 10+ reusable frontend components for cross-device compatibility, reducing code repetition by 17%.

Generative AI Engineer | Outlier | San Francisco, CA (Remote) August 2024 – October 2024

- Fine-tuned scalable AI training pipelines using Java and C across 10+ models, ensuring robust architecture.
- Monitored 100+ AI tasks in math, data, and image analysis, leveraging RAG and reinforcement learning to identify performance gaps, retrain models, and improve response relevance—reducing hallucinations by 5%.
- Evaluated 5000+ lines of AI-generated code across 100+ prompts, increasing overall model accuracy by 3%.

Data Science Intern | GE Vernova | Hangzhou, ZJ (On-site) July 2024 – August 2024

- Developed multilingual OCR software with 98% accuracy and automated BOMs with VBA, which eliminated manual errors, reduced execution time from 5 hours to 5 minutes, and boosted department efficiency by 8x.
- Created Smartsheet scripts to track safety compliance and product quality, cutting response times by 50%.
- Proposed DIY cart designs for machine operations; one adopted plant-wide, reducing overlap time by 38%.

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 | 10-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