Justin Hatch

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Seeking roles in Data Science, Machine Learning Engineering, and Backend Software Engineering.

EDUCATION

UNIVERSITY OF OREGON   **Eugene, Oregon**

B.S Computer Science - Specialization in *Data Science, Machine Learning, and AI*   SEPTEMBER, 2022 - June 2026

- *Dean's List | GPA:* 3.66
- ***Activities:*** DSCI Club, Oregon Software Consulting Group, Oregon Blockchain Group, Quack Hacks II
- **Relevant Courses** - Data Science I–II, Stats for Data Science, Probabilistic Methods in AI, Machine Learning, Data Mining,, Database Processing, Calculus I–II, Discrete Math I–II, Linear Algebra I–II, Data Structures, Algorithms, Operating Systems, C/C++, CS I–III, Computer Organization, Digital Forensic.

PROFESSIONAL EXPERIENCE

Oregon Blockchain Group - UNIVERSITY OF OREGON   EUGENE OREGON

Software Developer   *October, 2025 - Present*

- Contribute to a student-led engineering group delivering production-grade blockchain and software solutions.
- Research emerging on-chain frameworks, decentralized architectures, and Web3 technologies to support partner engineering needs.

Software Consulting Group - UNIVERSITY OF OREGON   EUGENE OREGON

Jr Software Developer   *October, 2025 - Present*

- Developed an AI-powered stock analysis web platform using **Flask, MySQL, OpenAI APIs**
- Built backend **ETL data pipelines, ML-driven insights, REST APIs**, and automated ingestion workflows.
- Containerized and deployed full-stack application on **AWS App Runner** for scalable production deployment.

UNIVERSITY OF OREGON HOUSING ADMINISTRATION   **Eugene Oregon**

Student Business Operations Assistant   October, 2023-Present

- Specialized in data entry for over **70 vendors**, ensuring accuracy and completeness.
- Reconciled and audited cash for more than **20 dining vendors,** maintaining financial accuracy and integrity.

SELECTED PROJECT

Evergreen Capital - *QuackHacks 2 Hackathon — 1st Place (**Solana Track**), 2nd Place (**Polymarket Track**) - Python, Solana, LLM Agents*

- Designed an AI-driven decentralized hedge fund using **Polymarket API, multi-agent LLM decision systems, and Solana-based staking.**
- Designed a **six-agent Gemini debate** system for market research, proposal evaluation, and autonomous trading.

Monte Carlo Stock Price Simulator (**Black–Scholes GBM**) — *Python, Pandas, Streamlit*

- Implemented Black–Scholes GBM–based Monte Carlo simulations to model stock price paths for prediction and scenario testing.
- Built a Streamlit dashboard for interactive experimentation, letting users choose tickers, set simulation parameters, and visualize expected prices, confidence intervals, and outcome distributions.
- Designed modular code for data ingestion, log-return computation, parameter estimation, and simulation to enable rapid iteration and future model extensions.

Evaluated Machine Learning Models for Customer Churn Prediction — *Supervised ML Classification - Python*

- Performed **data cleaning, feature engineering, EDA**, and applied multiple ML models (Decision Trees, KNN, SVM, MLP).
- Improved performance with **hyperparameter tuning and model validation**.
- Achieved **91% accuracy**, enabling proactive churn detection.
- Authored a technical report covering methodology and performance analysis.

Intel Sustainability + **GRAMMY U A/B Testing** - Data Analytics, *Excel, Statistical Analysis*

- Analyzed Intel sustainability data to identify high-ROI improvements and presented actionable insights.
- Conducted a statistically rigorous **A/B test** to determine the best CTA button for increasing GRAMMY U membership.
- Delivered narrative-driven visualizations aligned with industry reporting standards.
- Completed as part of the **Global Career Accelerator** program.

Freelance AI Annotation Work

- Produced high-quality screen-recorded demonstrations using **OBS** to train AI models on Microsoft Office workflows.
- Created detailed task walk-throughs with step-by-step reasoning and instructional clarity.
- Reviewed and annotated system-captured actions, providing structured "thought-process" explanations to improve LLM reasoning.

SKILLS AND CERTIFICATION

- **Programming:** Python (NumPy, Pandas, Scikit-Learn, Matplotlib, Seaborn, PySpark), SQL, C, C++, JavaScript, HTML/CSS
- **Frameworks & Tools:** Flask, FastAPI, Streamlit, Docker, Git/GitHub, Linux, AWS, Power BI, ChatGPT, Claude, Base-44, Lovable
- **Data & ML:** Data Analytics, Feature Engineering, Predictive Modeling, A/B Testing, Data Visualization, ETL/ELT
- **Databases:** MySQL, PostgreSQL, SQL schema design
- **Certifications:** Associate Data Engineer in SQL, Intel - Data Visualization, OpenAI - AI Professional Skills, Intercultural Skills