SUE HUYNH

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EDUCATION

Brown Univertsity, Masters' in Data Science — Expected 2028
- *Coursework*: Hands-on Data Science, Data Engineering, Machine Learning

University of Cincinnati, Bachelor's in Business Analytics & Marketing — Graduated 2023
- *Honors*: Dean's List, Magna Cum Laude, GPA: 3.9/4.0
- *Coursework*: Database Management, Data Mining and Analysis, Forecasting and Risk Analysis, Decision Models

SKILLS

Programming Python (scikit-learn, PyTorch, EconML, TransformerLens), SQL, R
Data Science Causal Inference, A/B Testing, Statistical Modeling, MLOps (Git, W&B, MLflow, pytest)

WORK EXPERIENCE

Marketing Analyst — Jun 2023 - May 2026
The Basement — *Indianapolis, IN*
- Developed the agency's first **Marketing Mix Model** for Fortune 100 clients, boosting ROAS (return on ad spend) for a $2M+ media investment and helping them reach their 3-year goals in just 18 months.
- Generated a record-breaking **28% YoY increase** in online and on-campus applications for a top university by conducting creative fatigue analysis and landing page diagnostics in Python.
- Cut operational costs by **30%** by building 20+ performance dashboards in Google Looker Studio and Salesforce.

Data Analyst — Nov 2020 - May 2026
STEAM for Vietnam Foundation — *Burlingame, CA*
- Developed a **boosting classifier** that detects at-risk students, enabling adaptive email interventions to sustain attendance.
- Drove **200K+** course registrations by developing marketing dashboards in Looker Studio and conducting bi-weekly analyses.
- Boosted learner engagement time by **50%** by analyzing user–feature network and guiding key platform improvements.

PROJECTS

Uplift Modeling for User Targeting — Jun 2026
- Built heterogeneous treatment effect models (Causal Forest, X/T/S-Learner) on Criteo Uplift dataset to translate outputs into a budget-constrained targeting policy, benchmarking against propensity-based targeting with Qini curve analysis.

GPT-2 Development & Mechanistic Interpretation — May 2026
- Built a 2-layer GPT-2 decoder transformer from scratch and applied logit lens, attention pattern analysis, and activation patching (TransformerLens) to trace compositional generalization failures on the SCAN benchmark, isolating two failure mechanisms, Layer 0 Dissolution and Layer 1 Overwrite, accounting for 60% and 40% of errors respectively.

T5 Compositional Failure Analysis — Apr 2026
- Conducted systematic error analysis on T5 outputs for SCAN compositional generalization tasks, revealing that 80% of failures were syntactic rather than semantic and isolating modifier co-occurrence as the driver of "around" keyword failures.

LLM Benchmark Evaluation — Mar 2026
- Designed a comparative evaluation framework on summarization quality and latency to benchmark Llama-3.2-3B against Mistral-Nemo-12B on news summarization, finding a 23x latency cost on Mistral for only a 0.07 ROUGE-L gain.

AWARDS

First Prize Winner, *AutoScientist Challenge: Bring Frontier AI to the World* — Jul 2026
- Fine-tune Marketing-Mixtral-8x7B and Marketing-Llama-3.3-70B with self-curated 13K+ rows of instruction data to achieving 87%+ win rates against base models and deploying the top model as a live AI agent via Gradio on HuggingFace Spaces.

Top 5 Finalist, *McKinsey Digital Hackathon: Hacking for a Sustainable and Inclusive Tomorrow* — Jun 2023
- Consulted on AI strategies to globalize edtech for Code.org, the world's leading K-12 computer science education non-profit.

COMMUNITY ENGAGEMENT

NEO Initiative, Analyst — 2022 - 2023
- Boosted sales from the young adult segment by 300% for a local Black-owned business by leading omnichannel analysis.

Lindner College Women in Business, Program Coordinator — 2019 - 2023
- Empowered 6K+ women in business through career development workshops, executive panels, and networking events.