

Hsiang Yu Huang (Anna)

Allston, MA | Tel: +1 617-319-5044 | huanganna1004@gmail.com | www.hsiangyuhuang.com | linkedin.com/in/hsiangyuhuang

EDUCATION

Boston University

Boston, MA

Master of Science in Data Science | GPA: 3.59 / 4.0

Dec. 2025

Relevant Courses: Deep Learning, Graduate Databases, Data Engineering, Time Series, Artificial Intelligence, Crypto

National Taiwan University of Science and Technology

Taipei, Taiwan

BBA in Industrial Management and Bachelor Program of Finance, Minor in Computer Science | GPA: 3.85 / 4.3

Jun. 2023

Relevant Courses: Algorithms, Machine Learning, Data Analytics, Statistics, Object-Oriented Programming

SKILLS

- **Languages & Frameworks:** Python, SQL, C++, TypeScript, JavaScript, R, FastAPI, Next.js, Node.js, Flask, React, HTML/CSS
- **Cloud & DevOps:** AWS (Lambda, S3, EC2), Azure, PostgreSQL, MongoDB, Docker, Linux, Nginx, CI/CD, Git
- **Data Engineering & Tools:** PySpark, ETL Pipeline Automation, SQL Database Design, Azure Synapse, PostHog, Power BI
- **AI Engineering & ML:** LangGraph, LangChain, MCP, PyTorch, TensorFlow, Scikit-Learn, Pandas, NumPy, NLP, Time Series

WORK EXPERIENCE

Full Stack Developer – Citale (citaleco.com)

Boston, MA

BU Spark! Launch Lab (Stipend) | Stack: Next.js, SQL, Supabase, Google Maps API, Vercel, PostHog

Sep. 2024 – Present

- Recruited to the engineering team of a BU Spark! incubated startup, earning a \$500 stipend for contributions.
- Designed **PostgreSQL database schemas** and Implemented backend data retrieval and real-time map features using **Next.js, Supabase, and Google Maps API**.
- Successfully launched the MVP to production, serving **200+ unique users** and utilizing **PostHog** for analytics.

Research Assistant – LLM Platform

Boston, MA

BU BIT Lab (Unpaid) | Stack: FastAPI, Next.js, MongoDB, LangGraph, Prompt Engineering, OpenRouter, MS Clarity

Sep. 2025 – Present

- Architected a **RESTful API using FastAPI** to orchestrate a **LangGraph multi-agent system**, managing asynchronous communication between Coordinator, Writer, and Reviewer agents.
- Designed a **MongoDB** schema to store complex conversation history and retrieval contexts, ensuring efficient data persistence for the multi-model console.

Research Assistant – Machine Learning for Sales Forecast

Taipei, Taiwan

NTUST Artificial Intelligence and Decision Analysis Lab | Stack: R, XGBoost, Time Series Analysis

Nov. 2023 – Jul. 2024

- Built an **ARIMA-XGBoost** forecasting pipeline, boosting predictive accuracy (R^2) from **8.3% to 73.4%**.
- Developed a **conditional rolling window model** to enable adaptive, real-time predictions.

Research Assistant – Smart Vending Machine Optimization

Taipei, Taiwan

NTUST Decision Analysis and Applied Statistics Lab | Stack: R, K-means Clustering, Decision Trees

Apr. 2023 – Sep. 2023

- Clustered product sales with **K-means** using metrics like mean, CV, and revenue to optimize stocking.
- Built a **classification tree** to identify product-shelf performance patterns and deliver actionable insights.

PROJECTS

More Projects are available here: hsiangyuhuang.com/projects

From Tweets to Trends – Predicting Stock Volumes Using X Sentiment

Boston, MA

Course: Big Data Engineering | Stack: Azure Functions (Python), ADLS Gen2, Rapid API

Feb. 2025 – May. 2025

- Leveraged **Azure Functions (Timer Trigger)** to establish **Cron-based automation** for the daily ingestion of social media streams from X (Twitter).
- Executed the **Extract & Transform (ETL)** process using **Python** to parse raw JSON data, converting unstructured logs into analysis-ready formats.

Winner – DS+X Hackathon 2025 (Best Overall, HackBU 1st)

Boston, MA

BU Spark! | Stack: Python, FastAPI, OpenAI API, OpenAlex API

Oct. 2025

- Engineered the backend for **RhettSearch**, an interactive research gamification platform driven by AI.
- Orchestrated a **RAG pipeline** that retrieves literature via **OpenAlex API** and synthesizes insights using **OpenAI API**.
- Designed structured **RESTful APIs** to parse complex JSON citation data, ensuring serialization for frontend integration.