

Hsiang Yu Huang (Anna)

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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 – May. 2025

- Designed **PostgreSQL schemas** with foreign keys for users, posts, and relationships, ensuring integrity.
- Implemented **10+ features** including messaging, notifications, and user profiles using **Supabase** and **Next.js**.
- Deployed production app on **Vercel** with **PostHog** integration for user analytics and system monitoring.

Research Assistant – LLM Platform

Boston, MA

BU BIT Lab (Unpaid) | Stack: FastAPI, 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 Product 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.

PROJECTS

More Projects are available here: hsiangyuhuang.com/projects

Boston Weekend Agent

Boston, MA

Stack: AWS (Lambda, Step Functions, EC2, S3), Python, LangChain, Cron

Nov. 2025

- Orchestrated a serverless ETL pipeline using **AWS Step Functions** and **Lambda** to ingest real-time event data.
- Deployed an **EC2**-based web scraper with **Cron** jobs to bypass anti-bot restrictions for reliable data extraction.
- Generated AI summaries via **LangChain** and stored static JSON in **S3** for low-latency frontend delivery.

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.