

HUSTON WILLIAMS

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See my projects here on my site: houstonw.com

EDUCATION

University of Houston — Houston, TX

Expected May 2027

B.S. in Computer Science

San Jacinto College — Pasadena, TX

May 2025

A.S. in Computer Science and Programming

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, PHP, HTML, CSS

Frameworks: Django, FastAPI, React, Vite, Tailwind CSS, pandas, NumPy

Cloud & Data: PostgreSQL, Apache Cassandra, AWS S3, Amazon Location Service, REST APIs, WebSockets

Tools: Git, SQLAlchemy, Alpaca API, asyncio

PROJECTS

Algorithmic Trading Platform

Python · FastAPI · React · PostgreSQL

- Built a full-stack automated trading system that screens the market, runs a portfolio of intraday momentum strategies, and executes orders through the Alpaca brokerage API.
- Engineered an asynchronous FastAPI backend that streams live market data over WebSockets, persists trades to PostgreSQL via SQLAlchemy, and auto-starts on a scheduler at market open.
- Developed a typed React dashboard with live charts, order entry, position tracking, and performance analytics; integrated Telegram alerts and an LLM API service that grades closed trades.

Real-Estate Listings Platform

Django · AWS S3 · Amazon Location

- Built a Django web application with user authentication where users post property listings with photo galleries, browse detail pages, and bookmark favorites.
- Implemented image upload and delivery through AWS S3 and an interactive property map using Amazon Location Service.

Tech Blog

Django · Apache Cassandra

- Built a blogging platform on Django backed by DataStax Astra (Apache Cassandra), working with a distributed NoSQL data model in place of a traditional relational store.

RESEARCH

Quantitative Backtesting Research — Intraday Equity Strategies

Python · pandas · NumPy

- Designed a research pipeline that screens the full ~7,400-symbol US equity universe across 2,592 trading days (2016–2026), funneling daily → hourly → minute resolution to make a decade of market data computationally tractable.
- Implemented and evaluated 255 strategy variants, running exhaustive parameter sweeps of up to 2,160 configurations per strategy and retaining the full result distribution rather than the best run.
- Quantified overfitting risk directly: of 1,626 configurations that generated trades, 1,350 were profitable and 276 lost money, with the median result far below the best — evidence the edge occupies a narrow band of the parameter space.
- Validated with out-of-sample testing across separate years (74.9% and 74.0% win rates over 1,886 and 795 trades), ablation studies, and strategy-overlap checks; documented limitations including survivorship bias and small-sample risk.

EXPERIENCE

Team Member — In-N-Out Burger

2024 – Present

- Work a high-volume, fast-paced service role alongside full-time coursework, maintaining accuracy and coordination with a team through sustained peak periods.

Retail Sales Associate — H&M

Aug 2023 – 2024

- Handled customer service, register operation, and stock across the sales floor while beginning my degree.

Volunteer STEM Teacher — Cline Elementary

Sep 2022 – May 2023

- Led an after-school STEM club: planned and taught lessons, guided students through hands-on projects, and communicated progress to parents and teachers.

Engineering Intern — Mr. Foreman

Aug 2021 – May 2023

- Used 2D and 3D CAD tools to design and develop engineering models, and performed calculations to analyze and optimize manufacturing processes.