

Yasir Hassan

Yasirh567@gmail.com | linkedin.com/in/yasir-hassan5612 | github.com/yasirh567-stack | yasirh.com | 682-227-7009

EDUCATION

University of Texas at Austin

Austin, TX

Bachelor of Science in Electrical and Computer Engineering

May 2027

Relevant Coursework: Data Structures, Algorithms, Digital Logic Design, Discrete Mathematics, Probability, Computer Architecture

EXPERIENCE

Spectrum

Austin, TX

Software Engineer Intern

May 2025 – Aug 2025

- Contributed to a network traffic anomaly detection effort, helping build and evaluate models that flagged unusual patterns in log data for the diagnostics team.
- Developed conversational AI and agent-assist tooling that surfaced relevant guidance to support representatives during live customer interactions.
- Helped drive a 54% reduction in average resolution time by delivering the agent-assist tooling to the support team.

Aristocrat Leisure

Austin, TX

Software Engineer Intern

Jan 2024 – May 2024

- Built a GPU usage monitoring tool in C++ and OpenGL that surfaced rendering performance across different hardware configurations, giving users visibility into system behavior.
- Profiled rendering across hardware setups to pinpoint performance bottlenecks, informing optimizations that improved frame rate and reduced memory usage.
- Added performance logging that recorded metrics per hardware configuration, giving the team a repeatable way to compare setups and catch regressions over time.

Preptify

Austin, TX

Software Engineer Intern

Sep 2023 – Dec 2023

- Built the frontend of an early stage mock interview platform for software and electrical engineering candidates using HTML, CSS, and JavaScript, implementing the candidate-facing interview flow and UI.
- Delivered the platform's first user-facing interface for launch, contributing to a 25% increase in users trying the product.

PROJECTS

MarketPulse: Full Stack Financial ML Platform (Python, FastAPI, React, TypeScript, scikit-learn, Docker)

- Built a full stack platform combining near real time market data, NLP sentiment analysis (VADER/FinBERT), and explainable ML stock predictions with a React/TypeScript frontend and FastAPI backend, verified by 96 backend tests at 89% coverage plus Vitest and Playwright suites.
- Diagnosed and fixed a probability calibration bug where the model reported 97% confidence on near coin flip accuracy, then added a regression test to prevent recurrence.

Alpha-Strike: Statistical Arbitrage Research Pipeline (Python, pandas, statsmodels, NumPy, Pytest)

- Built a pairs trading backtester that screens S&P 500 sector pairs for cointegration and evaluates 5,000+ strategy variants with walk-forward validation, modeling transaction costs and volatility targeted position sizing, with 28 tests guarding against lookahead bias and state machine edge cases.
- Applied the Deflated Sharpe Ratio and permutation testing to correct for multiple testing across the strategy grid, demonstrating that 1,051 naively profitable variants (Sharpe > 1.0) all failed to show statistically significant skill, and documented data caveats like survivorship bias.

LEADERSHIP

Gamma Beta Fraternity

Austin, TX

Vice President of Service

Jan 2024 – Present

- Planned and led community service initiatives, coordinating logistics, outreach, and post event feedback to improve future programming.
- Built a semester long service roadmap and used member input to prioritize high impact events and grow participation.

SKILLS

Languages: Python, C++, TypeScript, JavaScript, SQL, Verilog

Frameworks/Libraries: React, FastAPI, Flask, scikit-learn, Pandas, NumPy, PyTorch, SQLAlchemy, OpenGL

Tools: Git, GitHub Actions, Docker, Linux, Jira, Pytest, Playwright