

Fatih Hekimoğlu

BSc (Hons) Computer Science · University of Sheffield · Co-founder @ Tayf

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EDUCATION

BSc (Hons) Computer Science, University of Sheffield

Sep 2023 - Jun 2026 (expected)

Aiming for a 2:1. Selected final-year marks: Software Hut [69](#), Human-Computer Interaction [67](#), Functional Programming [66](#), Speech Processing [64](#), Software Development for Mobile Devices [63](#).

Dissertation: Identifying Asset-Price Exuberance and Negative Abnormal Returns in UK Equities via Machine Learning

Leakage-safe walk-forward ML pipeline over UK equities; hyperparameters committed to a SHA-256 manifest before evaluation. Dependence-aware multiple testing (Clark-West, Romano-Wolf, Model Confidence Set) over an iid/HAC/ Politis-White variance envelope; $O(T^2)$ prefix-sum BSADF. Honest finding: rejections collapsed from [14/74](#) to [2/74](#) across variance estimators and the long-short signal failed the deflated-Sharpe test; reported as an audited predictability claim, not a trading strategy. Python, scikit-learn.

EXPERIENCE

Co-founder, Tayf (AI SaaS startup), Istanbul / remote

Jan 2026 - present

AI/ML news-analysis platform for a free and unfiltered press ("same news, different worlds"); [~2,200](#) monthly site visits as of June 2026, early stage. Real-time pipeline over [144](#) Turkish outlets: three-method ML story-clustering ensemble (TF-IDF similarity, 4-gram fingerprints, entity overlap), news sentiment analysis, who-said-what views across bias zones, blindspot and cross-spectrum surprise detection. Next.js 16, React 19, TypeScript, Supabase, pgmq, Deno 2, Vercel cron; event-driven, no long-running workers. tayf-ruby.vercel.app · github.com/noxire-dev/tayf

Software Engineer & IT Support, Hekimoglu Attorney Partnership, Istanbul

Jun 2024 - Oct 2024

Full-time summer placement. Built the firm's public website from scratch (PHP, JavaScript, HTML, CSS) and a CMS admin panel so non-technical staff publish without developer involvement. Server and power-backup systems; documented and tested a disaster-recovery plan; modernised company devices.

Earlier university team projects

Led a 6-person team building a client book-reading web platform (SQL, JavaScript, Ruby/Sinatra); Engineering Without Borders transport feasibility study (Cambodia).

SELECTED PROJECTS

Quantitative research suite: 20 ML-finance projects

[GitHub](#) →

Rebuilt from first principles and judged out of sample; [~1,200](#) tests across the research code. Includes GARCH-vs-ML volatility, HMM market regimes, and options pricing NN vs Black-Scholes.

markowitz-optimizer

[case study](#) →

From-scratch mean-variance optimization. 562 tests · 99% coverage · reproduces He-Litterman to 1e-4.

pairs-trading

case study →

Cointegration stat-arb. 527 tests · OOS deflated Sharpe 0.71 vs IS 1.94; the out-of-sample number is the headline.

ma-crossover-backtest

case study →

Rigorous evaluation harness; honest null. 82 tests · 97% coverage · Jensen's α p=0.69; cannot reject zero skill.

eigen-portfolios · factorlab · capstones

GitHub →

PCA + Marchenko-Pastur RMT signal/noise separation (MP edges to 1e-12) · Fama-French 3/5/6 + Carhart with Newey-West HAC by default · end-to-end algo-trading system (Alpaca, Dockerised) · RAG agent over SEC EDGAR 10-K filings.

AWARDS

Software Hut Prize (Client), University of Sheffield

2024/25 · on HEAR

Team judged by the client to have delivered the most effective software under an agile process; group lead for an AI-assisted Kanban board built for the consultancy Reply (COM3420, mark 69).

Engineering "You're Hired", 1st place + Distinction

2025

BetterPicked: CNN computer vision to cut supermarket food waste ~40%; led financial modelling, market research and the pitch. Also received the Dr Trish Murray Professional Behaviours Team Award.

SKILLS

PROFICIENT

Python (NumPy, pandas, scikit-learn)

TypeScript/JavaScript

SQL

Git

WORKING KNOWLEDGE

Java

C/C++

Swift

Ruby

PHP

Bash

ML & STATISTICS

Random forests

Gradient boosting

Portfolio theory (Markowitz, Black-Litterman, Ledoit-Wolf)

Time-series & out-of-sample evaluation

Multiple testing under dependence

Deflated Sharpe

Reproducible pipelines (TDD, CI)

WEB & PRODUCT

Next.js

React

Supabase

Deno

Vercel

LANGUAGES SPOKEN

English

Türkçe