

Harrison Keen

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EDUCATION

Lehigh University

Bachelor of Science in Integrated Business and Engineering Honors Program

Majors: Industrial and Systems Engineering, Physics

Minors: FinTech, Data Science, Philosophy

Honors: Integrated Business and Engineering, Dean's List (all semesters), NCAA All-Academic, AP Scholar with Distinction

Bethlehem, Pennsylvania

Graduation: May 2028

GPA: 3.93 / 4.00

WORK & LEADERSHIP EXPERIENCE

Ornn (5th Employee out of 15, ~\$1B Valuation)

MTS and Market Infrastructure

New York City, New York

May 2026 - Present

- Directed 8 engineers across ingestion infrastructure, product, public and private APIs (200+ live keys), public and private MCP servers, and billing; shipping over 100 PRs personally.
- Reduced AI-development token costs by 80% by designing agent-orchestration harnesses with automated model routing and review gates that maintained production reliability while optimizing model selection..
- Hardened the methodology behind Ornn's indices across Bloomberg, Kalshi, Hyperliquid, and Binance: traced multi-hour data gaps to a single hung ingest job, set up fallback infrastructure, and helped updated index rules.
- Led the data platform's paid launch, signing Bridgewater, SIG, Jump, Tudor, Millennium as customers.
- Turned down competitive full time offer to go back to school.

Men's Track and Field Team

Division 1 Varsity Thrower

Bethlehem, Pennsylvania

July 2024 – Present

- Ranked in the Top 5 nationally and Top 30 globally for Under-20 Javelin throwers, contributing to Lehigh Javelin Squad's 5th place national ranking. Also placed 6th at the USA National Under-20 Competition
- NCAA Regional Qualifier as a Freshman, placing 29th overall against all East Region Division 1 Javelin throwers.
- Training under Olympian Michael Shuey with 25+ hours of weekly athletic commitment.

Town of Wellfleet

Seasonal Harbormaster

Wellfleet, Massachusetts

June 2024 – July 2025

- Managed harbor operations for over 900 vessels.
- Developed real-time transient parking availability features within the digital reservation system, facilitating instant bookings for 500+ users in three months to enhance customer experience.

RESEARCH & PROJECTS

Undergraduate Physics Researcher

Lehigh University

Bethlehem, Pennsylvania

April 2026 - Present

- Conducting research with Prof. Rosi Reed's lab from the sPHENIX detector at Brookhaven National Laboratory, studying quark-gluon plasma formation via heavy-ion collisions at near-light speed.
- Analyzing collision data to investigate strong force dynamics through quantum chromodynamics.

Prediction Market Derivatives Research

Lead Researcher

Bethlehem, Pennsylvania

July 2025 – January 2026

- Developed a no-arbitrage pricing framework for prediction market derivatives, proving same-expiry redundancy and market completeness via intermediate-expiry options. Manuscript under journal review.
- Built a jump diffusion model for bounded binary assets. Validated volatility assumptions empirically using Kalshi market data via REST API and WebSocket integrations.

Lehigh "Plan Ahead Professor" Chrome Extension

Personal Project

Foxborough, Massachusetts

July 2025

- Built a Chrome extension integrating RateMyProfessors data into Lehigh's course registration system that displays real-time professor ratings and statistics using JavaScript, CSS, and GraphQL API.
- Acquired 100+ active users and generated 500+ engagements on LinkedIn.

SKILLS, ACTIVITIES & INTERESTS

Languages: Python, TypeScript, SQL, R, JavaScript, Java

Web & Backend: React, Next.js, FastAPI, GraphQL

Data & Infrastructure: PostgreSQL, GCP, Vercel, Docker, GitHub Actions, Grafana, Sentry

AI-Native Engineering: MCP, RAG, Model routing, AI orchestration/evaluation, Claude Code, Codex, Devin, Greptile

Interests: Skiing, Golf, Poker, Mountain Biking, Strategic Gaming, Music, Philosophy, Photography