

HIGHER EDGEICATION

**Preparing University Students for an
AI-Integrated Future**

Bree Lang, Ph.D

Matt Lang, Ph.D

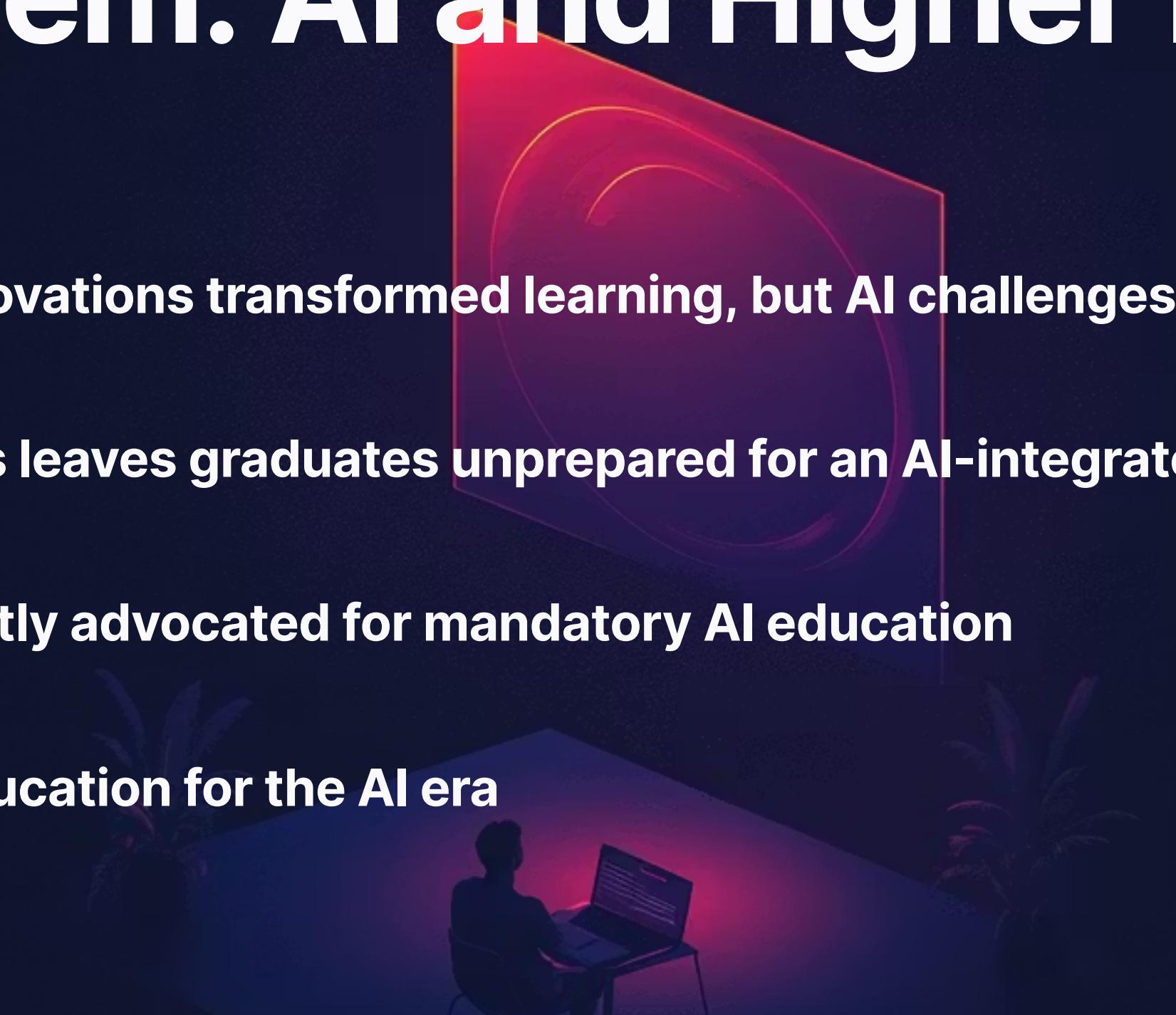
Lars Leimkuhler, Ph.D. Candidate

a16z Speedrun Application

May 2025

The Problem: AI and Higher Education

- Past technological innovations transformed learning, but AI challenges critical thinking
- Traditional approaches leaves graduates unprepared for an AI-integrated workplace
- 250+ tech CEOs recently advocated for mandatory AI education
- We must reimagine education for the AI era



The question isn't whether AI belongs in the classroom, it's how we raise the bar for learning in the age of AI

Introducing Higher Edgecation

Educator-Built for the AI Era

- **Next-Gen Learning Platform:** Blends traditional teaching with AI-powered assessment
- **Gamified, "AI-Proof" Assessments:** Games that measure true understanding
- **Integrated AI Literacy:** Students learn about the strengths and limits of AI
- **Faculty Analytics:** Real-time insights into student mastery and AI reliance

Faculty can confidently say:

'Use AI to learn, but we'll know what you understand'

Initial Rollout (UCR, 2023)

- Used by 1,000+ students at UC Riverside
- Key Concepts: tradeoffs, elasticity, tariffs, national debt, investing, etc.
- Gamified Learning: Randomized Scenarios, Leaderboards
- Success = Concept Mastery



Virtual Econ

Welcome, Guest!

Choose how you will allocate your time.

Age: 23	Health: 26.57	Food: 96.03
---------	---------------	-------------

Hunting Hours (0 - 24):

Resting Hours (0 - 24):

Submit

You hunted for 7 hours and rested for 17 hours. Total health change for this period: 9.02. Total food change for this period: -3.97.

Age	Health	Food	Net Health Change	Net Food Change	Hunting Hours	Resting Hours
23	26.57	96.03	9.02	-3.97	7	17
22	17.55	100.00	-11.44	10.88	13	11
21	28.99	89.12	-12.92	23.16	13	11
20	41.91	65.96	0.11	-2.94	10	14
19	41.80	68.90	-8.20	18.90	13	11

Virtual Econ

The Rational Hunter

Your Final Age: 26

View Leaderboard **Start Over**

Health and Food Status by Age

Activity Hours Over Time

Game Log

Age	Health	Food	Net Health Change	Net Food Change	Hunting Hours	Resting Hours
19	41.8	68.9	-8.2	18.9	13	11
20	41.91	65.96	0.11	-2.94	10	14
21	28.99	89.12	-12.92	23.16	13	11
22	17.55	100	-11.44	10.88	13	11
23	26.57	96.03	9.02	-3.97	7	17
24	11.55	100	-15.02	3.97	11	13
25	10.34	100	-1.2	0	9	15
26	0	100	-10.34	0	12	12

Virtual Econ

The Rational Hunter Username: matt

Rational Hunter Leaderboard for Class 2224

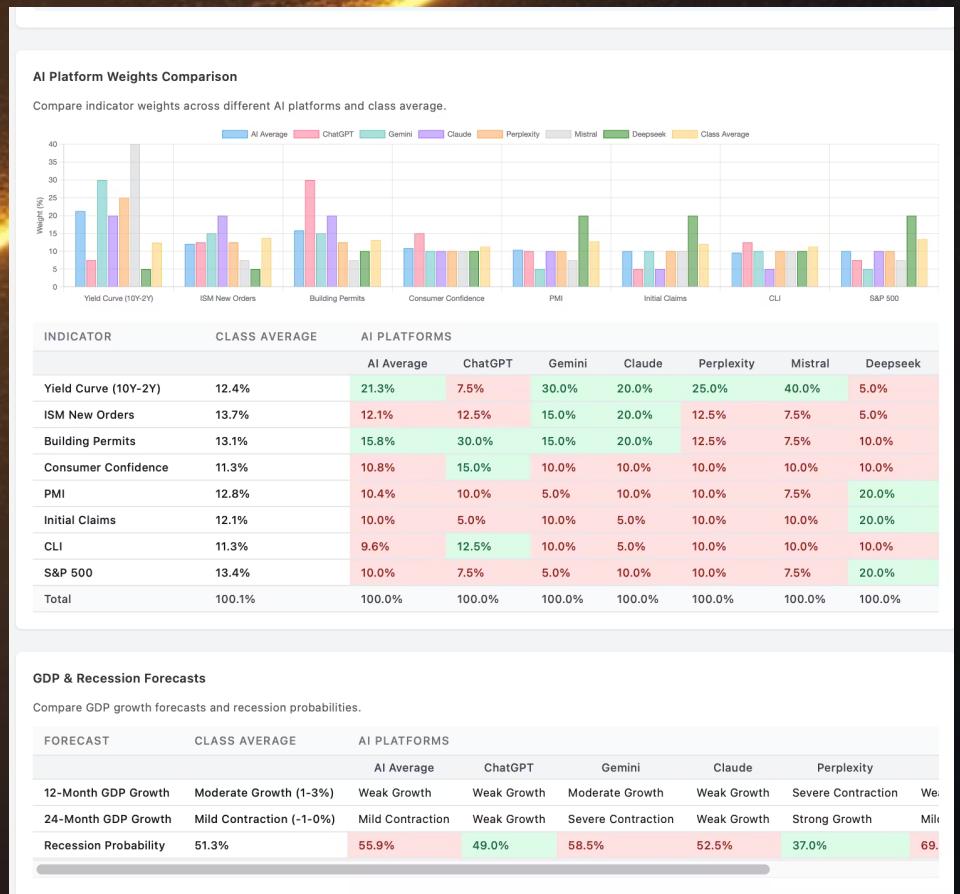
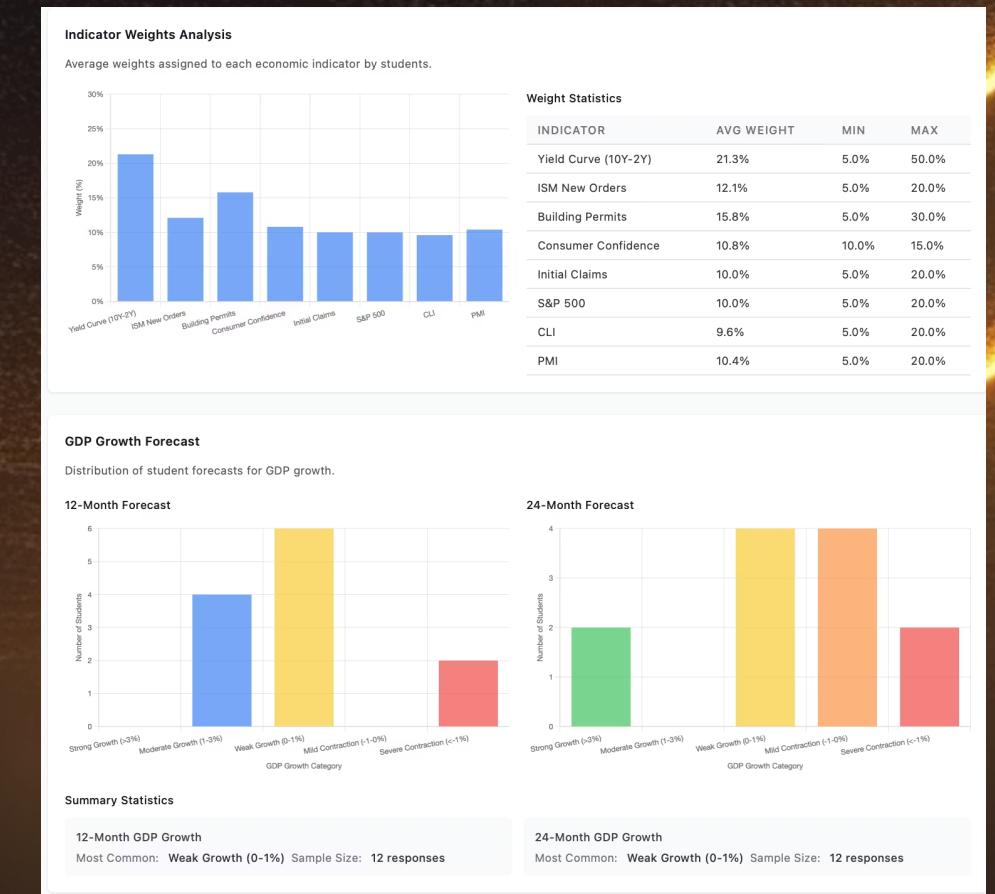
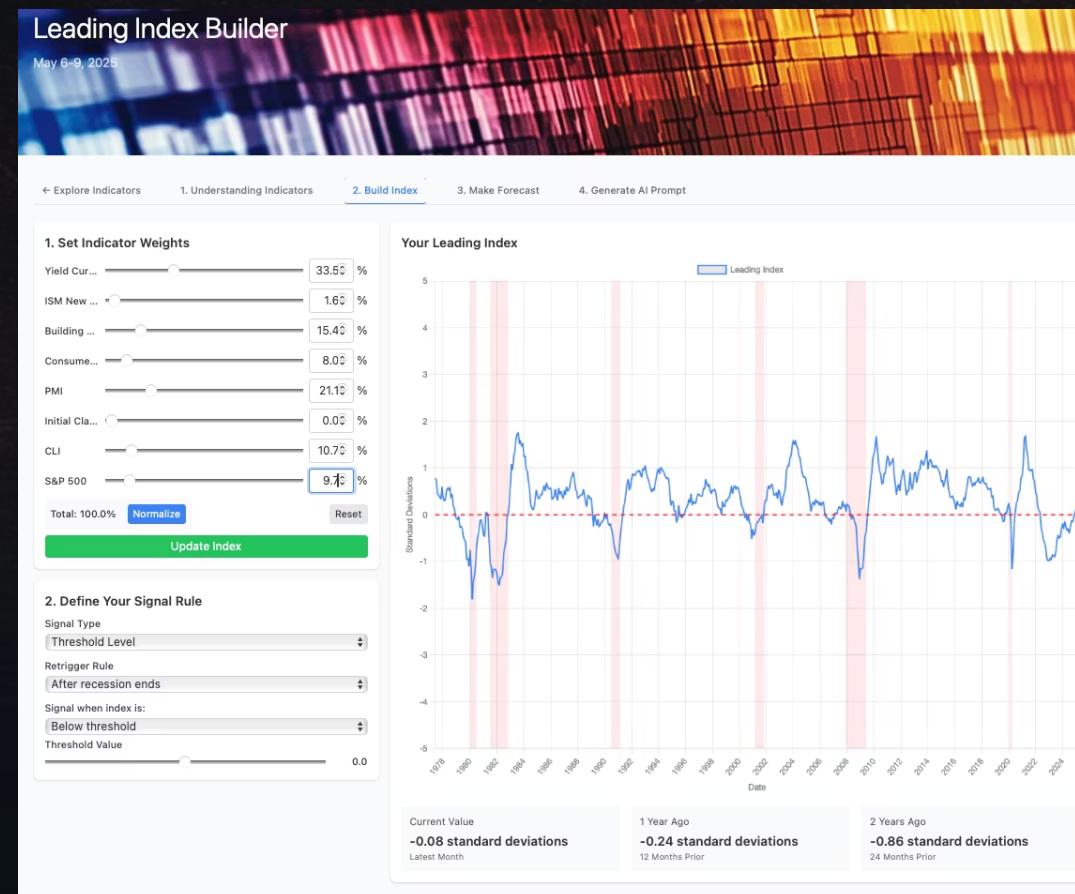
Rank	Username	High Score
1	Devonroman	44
2	23natethegreat	43
3	Atlas_05	39
4	BDub	34
5	12pm	31
6	kayley	29
7	eaiva105	23

Start Over

<https://virtualecon.ucr.edu>

Current Iteration (UCSB, 2025)

- Students interact with real-time data and make decisions
- Analyze and compare results with both peers and AI
- Activities are designed to enhance critical thinking, not replace it



<https://matthewdlang18.github.io/macroeconomics-course-website/index.html>

Expanding the Platform

Quarterly Game Expansion

- AI-Enhanced FOMC Role Play
- Housing Boom and Bust
- Bitcoin Mining Simulation

Flagship Experience: *Balance of Power*

- Comprehensive economy-building simulation testing multiple concepts
- Dynamic, randomized events for unique gameplay
- Assessment based on real-world application

A flight simulator for economics: practice real-world decision-making without real-world consequences.

The Market Opportunity

- **900,000+ students take Principles of Economics annually in U.S.**
- **40% of all college students encounter at least one economics course**
- **\$163B EdTech market growing at 13% annually**
- **Per-Course Pricing = consistent, scalable revenue**

Initial Target:

- **10 UC system economics departments → 10+ U.S. universities → International expansion**

Universities are searching for cost-effective, AI-ready solutions.

The Competition

	<i>Higher Edgecation</i>	MobLab	VeconLab	Textbooks
AI Integration	<i>Purpose-built</i>	None	None	Add-ons
Assessment	<i>AI-resistant games</i>	Basic Scoring	Basic Results	AI-Vulnerable
Faculty Workload	<i>Reduced</i>	Moderate	High	Consistent
Course Integration	<i>Seamless</i>	Add-on	Add-on	Static
Classroom Testing	<i>Extensive</i>	Limited	Scattered	N/A
Engagement	<i>High (gamified)</i>	Moderate	Low	Very Low

Existing platforms were built before the AI revolution and lack the architecture to address today's challenges

Our Edge

Instant Classroom Deployment: Immediate use and testing in our courses - no waiting, no barriers

Faculty-Led Design: Created by professors who understand both the classroom and the technology

Proven & Innovative: Built on established educational methods, reimagined for the AI era

First Mover: Only platform addressing both AI literacy and AI-resistant assessment

Our Edge: Testing with real students while competitors are still brainstorming

Why This Team



Bree Lang, Ph.D.
Teaching Professor
UCSB



Matt Lang, Ph.D.
Teaching Professor
UCSB



Lars Leimkuhler, MA
Economics Ph.D. Candidate
UCSB

Academic Credibility: Thousands of students taught annually at top universities

Relentless Experimentation: We build, test, and refine in our classrooms

AI-Enhanced Development: We combine our programming skills with AI tools for rapid innovation

Frontline of AI in Education: Our solutions emerge from daily experience

Our experience lets us see what's needed. AI helps us build it faster than ever before.

Roadmap: Economics, Then Expand

Economics Foundation (Now-Q2 2026)

Complete UCSB pilot with measurable outcomes

Pilot at other UC economics departments

First Expansion (Q3 2026 - Q2 2027)

Scale to 10+ university economics departments nationwide

Adapt platform for Mathematics, Statistics, and Finance

Broader Expansion (2027+)

Expand to Computer Science & STEM fields

Replace outdated Learning Management Systems

Economics provides the ideal testing ground before transforming higher education broadly

Why A16Z Speedrun?

What We Bring

Alignment with Speedrun Pillars: Technology, Entertainment, and AI

Real Traction: Direct Connection to UC campuses

Fast Execution: Rapid build and iterate cycle

What Speedrun Unlocks

Go-To-Market: Expert guidance needed for us to become founders

Investment Strategy: Connections to education-focused investors

Technical Resources: Infrastructure for rapid development

Together, we can redefine the future of education

The Higher Edgecation Opportunity

Someone will successfully merge AI into higher education – and be rewarded.

We are positioned to lead :

- **We live the problem daily as instructors teaching 1000+ students annually**
- **We bring both domain expertise and technical skills**
- **We are willing to innovate while others cling to tradition**
- **We have already started testing in classrooms**
- **We see the opportunity that others are avoiding**



We are done talking about AI's impact on education. We are doing something about it.