# CALEB KHA-UONG

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#### **EDUCATION**

**Princeton University** Aug. 2024 - May 2028

Bachelor of Engineering in Computer Science; Minors in Statistics & ML and Quant Econ

Princeton, NJ

Relevant Coursework: Data Structures & Algorithms, Vector Calculus, Linear Algebra with Applications, Machine Learning (Fall '25), Programming Systems (Fall '25)

## **EXPERIENCE**

## **Princeton Vision and Learning Lab**

Sep. 2025

Computer Vision Researcher

Princeton, NJ

Princeton Vision and Learning Lab by Jia Deng, working under Erich Liang

Remora

Quantitative Software Engineer

May 2025 - Present Lexington, VA

- Building predictive models for **S&P 400 MidCap** stocks to forecast 2-week returns and rank top gainers/losers from market and news data.
- Designing sector-aware ensembles that, in backtests, beat the benchmark by 1.5-2% in 2-week returns for top-quintile picks.

MyChance.ai Apr. 2025 - Present

Founding Engineer

Princeton, NJ

- Built and launched a centralized college admissions platform (match-making, chance-me, essay review, application tracking), attracting 3,000+ sign-ups.
- Designed a scalable Supabase/PostgreSQL backend for profiles, college data, and recommendations; integrated **Stripe** for subscriptions.

# **Princeton University IPA Lab**

Sep. 2024 - Present

Al Researcher

Princeton, NJ

- Led large-scale LLM hallucination experiments with 1,000+ trials on 20,000 WikiData facts across six spacing parameters (G values).
- Found significant schedule effects (p < 0.001): blocked training reduced hallucinations by an average of 21% in Geography and 29% in Literature vs. interleaved.
- Ran DRM false-memory experiments (4,000+ prompt-response pairs); semantic clustering raised false recall by 7% on average and up to 35% in some models.

## **PROJECTS**

**Distill** | Python, PyMuPDF, Transformers, OpenRouter, BM25, Rank Fusion/MMR

Aug. 2025 - Present

- Achieved up to 98% context reduction, saving 10,000+ tokens per query under tight context budgets.
- Increased retrieval efficiency by filtering **500+** candidate chunks to  $\sim 250$  high-value segments ( $\approx 50\%$ ), cutting processing costs nearly in half while preserving citation accuracy.

**Volley** | Python, YOLO-v8, PyTorch

Jun. 2025 - Present

- Developed a real-time tennis tracking system (60 FPS) that detects players and the ball, drawing a 2D overlay of positions on the court.
- Estimated ball speed/velocity from keypoints with 95% accuracy, showing live response in output video.

## SKILLS AND INTERESTS

Languages: Java, Python, C (Fall '25), JavaScript, HTML, CSS

Frameworks/Libraries: React, Next.js, pandas, NumPy, Matplotlib, PyTorch, GSAP, Tailwind Databases/Platforms: Supabase, PostgreSQL/SQL, Firebase, Git, Vercel, Docker, HuggingFace