

EDUCATION *Stanford University*, Stanford, CA

Ph.D. in Economics, 2021

- Concentrations: Industrial Economics, Corporate Finance, and Entrepreneurship & Innovation

Northwestern University, Evanston, IL

B.A. in Economics, Mathematics, and Mathematical Methods in Social Sciences, 2012

SKILLS

- **Languages & Aptitudes:** Python (Pandas, NumPy, Scikit-Learn, Statsmodels, PySpark, etc.), SQL, Stata, Matlab, R, Go, Solidity, Vue/React, C#, Redis, Azure, Git, Databricks, Tableau; experienced in frontend/backend/REST API development and cloud deployment for data science/analytics pipelines
- **Machine Learning:** regression, classification, dimensionality reduction (clustering, recommendation)
- **Empirical Economics:** causal inference, quant. marketing (AdTech), experimentation (A/B Testing)

WORK

Head of Economy at *Uprising Labs*, June 2024 - Present

EXPERIENCE

- Led monetization, economy design, data science, and analytics for a game publisher
- Operated and supported a web3 game accelerator program for the Somnia ecosystem, collaborating with external studios on game economy, tokenomics, NFTs, incentives, and strategies
- Led economy and **monetization** initiatives, including progression, balancing, sinks and faucets, rewards and incentives, NFT mechanics, and **live ops** across multiple titles
- Developed gaming analytics and infrastructure initiatives, including cross-game schemas, verifiable gameplay data, **measurement** frameworks, and player analytics and data science features
- Designed and developed KPI frameworks, **player segmentation**, **cohort analyses**, **churn analytics**, **LTV estimation** to support data-driven **personalization**, live ops, and product strategy
- Collaborated with executives, producers, designers, engineers, and external partners on strategic planning, financial modeling, publishing evaluations, and growth initiatives

Economy Design Lead/Economist (Contract) at *The Sandbox*, April 2024 - March 2025

- Led economy design and analytics initiatives for web3 gaming, focusing on game economy, progression, balancing, monetization, live ops, and user analytics
- Designed and balanced gameplay systems including resource generation, crafting loops, incentives and rewards, sinks and faucets, and in-game currency economies
- Led development of KPI frameworks, measurement, and player analytics to support product strategy, economy balancing, and player engagement optimization
- Collaborated with product managers, designers, engineers, and stakeholders to improve game features

Senior Economy Designer at *Pixelberry (Nexon)*, Los Altos, CA, March 2023 - March 2024

- Led **product management** for the economy/monetization features of interactive story game and UGC platform and data initiatives, aimed at improving conversion/retention and ensuring stable economies
- Led the design and analysis of **surveys**, **A/B testing**, and **measurements** to extract insights from heterogeneous responses and treatment effects, guiding product features, live ops, and monetization
- Created dashboards to monitor game economies and user behavior, facilitating data-driven decisions
- Developed user **cohort & behavior analytics** frameworks and **churn prediction** models to derive actionable insights, leading to increased conversion, improved retention, and enhanced user experience
- Led **feature engineering**, improving data quality, and **clustering** and **dimensionality reduction** for user **segmentation** and **personalization**, enhancing marketing/UA, reengagement, and retention
- Led data-driven **IAP pricing**, **financial modeling**, and **forecasting** to support strategic decisions

Economist at *Alloy & Reach*, Boston, MA, March 2022 - March 2023

- Led **product management** for the design of monetization and incentive models; the mechanics of tokens, NFTs, and smart contracts; tokenomics; and web3 gaming platform and marketplace
- Collaborated with producers, designers, and engineers, resulting in successful MVP/beta launch
- Led data science initiatives in data pipelines, data dashboards, **prescriptive analytics**, and **pricing**
- Led **financial modeling**, **forecasting**, and data-driven decision support in marketing and fundraising
- Advised indie gaming studios on monetization and economy design, fostering stronger partnerships

Data scientist at *Retina AI*, Santa Monica, CA, September 2021 - January 2022

- Diagnosed and improved product pipelines in **feature engineering** and **recency, frequency, & monetary value (RFM)**, **dimensionality reduction**, **clustering** and other statistical models
- Automated internal model training (**param tuning & cross-validation**), leading to higher efficiency
- Developed and productized **cohort analysis** using Gelbach decomposition to disentangle the impact of consumer attributes on cohort heterogeneity in purchase patterns, garnering positive client feedback
- Developed and productized **feature selection (Lasso and boosting trees)** to identify the relative importance across consumer attributes in explaining **Customer Lifetime Value (CLV)**

RESEARCH

“Venture Capital Investment and the Role of Traction: Evidence from Mobile Entrepreneurship,” 2021

EXPERIENCE

- Studied **causal inference** in VC’s investment decision and dynamics with **panel data** of startups
- Estimated **hazard model** with **control function approach (instrument var, MLE, bootstrap)**
- 2018 *Kauffman fellowship* (top 15 entrepreneurship dissertations), 2017 *Shultz fellowship* (Stanford)

“Relative Performance Evaluation in CEO Turnovers,” 2018

- Studied **causal inference** in corporate board behavior, the evaluation and turnovers of CEOs
- Devised novel **quasi-experimental** approach and estimated **2SLS** regressions (**instrument var**)

“Monetization Strategy Innovation in the Mobile Application Market,” 2016

- Examined adoption tendency and impacts of mobile app’s novel monetization strategies