

Mike Xu

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EDUCATION

Carnegie Mellon University

Master of Entertainment Technology in School of Computer Science

Current GPA: 4.0 / 4.0;

University of California, Irvine

Bachelor of Science, double major in Computer Science (AI specialization) and Computer Game Science

GPA: 3.8 / 4.0; Dean's Honor List for both majors.

GRE: 337 / 340; 99th percentile, 170 / 170 in quantitative reasoning.

Pittsburgh, PA

Expected May 2025

Irvine, CA

Sep 2019 – May 2023

PERSONAL PROJECTS

Blackjack Card Counting

Advantage Player

Irvine, CA

June 2022 – Present

- Built a Blackjack model using Java to compute, visualize, and analyze the expected values and risks of various betting strategies; accumulated profits of \$100,000 in 280 hours of playing time with an initial capital of \$50,000.
- Focused on exploiting pricing inefficiencies of Blackjack side-bet games using the model in combination with basic high-low card-counting methods, generating \$400 of hourly EV while averaging 0.004% risk of ruin. I was backed off by 20 casinos.
- Constructed 40+ deviation plays based on the game's true count, increasing the hourly expected value in profits by 30%.

Texas Hold'Em Algorithms

Developer

Irvine, CA

Jan 2021 – Mar 2021

- Built a specialized poker engine using Python and data mining to generate ranges and strategies focusing only on pre-flop action, exploiting suboptimal preflop plays in offline games. Got 1st place twice in 150+ people tournaments.
- Used Java to model and price insurance options for All-In scenarios; monitored live PnL, risk, and implied breakeven metrics. Took over insurance positions for many private games in Irvine and LA, generating over \$20,000 in profits in 4 months by operating on the buy side and sharing a cut of the profits with game owners.

WORK EXPERIENCE

Noverlap

Co-Owner; Lead Game Designer & Developer

Shenzhen, China

Aug 2021 – Present

- Co-founded a game studio specializing in indie games; officially registered in China with ¥1mm CNY in registered capital.
- Led the development of firm's latest game, The Pathema, as lead developer and stats designer. It is published on Steam.

Chipvisvion Microelectronics

Software Engineering Intern

Shenzhen, China

May 2023 – Aug 2023

- Tailored code optimizations and concurrency controls for high-performance interactions with hardware. Employed multi-threading or asynchronous programming techniques to improve response times.
- Developed and maintained scalable APIs using Java and Spring Boot for interacting with microchip hardware. Responsible for data parsing, storage, and retrieval operations for high-frequency updates.

Infervision

Assistant Researcher

Beijing, China

Jun 2021 – Sep 2021

- Wrote a paper with a team of researchers on applying Deep Convolutional Neural Networks for CT scans pre-trained on ImageNet; created heatmaps to demonstrate the significant regions of interest with regard to the likelihood of diagnosis.

ACADEMIC PROJECTS

Kaggle Competition Weather Prediction Project

Developer

Kaggle.com

Jan 2021 – Mar 2021

- Applied models including gradient boosting, k-nearest-neighbor, and random forest to predict weather patterns; improved prediction accuracy by weighing model results independently based on their confidence levels.

VR Word

Developer

Irvine, CA

Mar 2022 – Sep 2022

- VR Word is a game supported by VR platforms where players can use weapons to destroy toxic words and hateful comments commonly seen online. Developed the game using Unity 3D and designed the game's weapons and attributes system.

SKILLS & INTERESTS

Technical Skills: Quantitative Analysis, Machine Learning, Statistical Modeling, Risk Modeling and Quantification, Algorithm Design, Probability and Statistics. Python, C++, Java.

Interests: Poker, Poker Insurance Market Making, Video Creator (1mm+ views), High-end Headphones Market Making.