Kevin Lim

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EDUCATION

The University of Chicago   Chicago, IL
MS Computer Science   June 2025 (Expected)
Highlighted Coursework: Advanced Programming, Algorithms, Databases
Awards: Merit-Based Scholarship Recipient

The University of Chicago   Chicago, IL
BS Computer Science, BS Mathematics   Graduated June 2024
Highlighted Coursework: Computer Architecture, Computer Networks, Computer Systems, Machine Learning
Awards: Putnam Mathematics Contest – Top 25%

TECHNICAL SKILLS

Programming Languages: Python (NumPy, PyTorch, Gurobi), C, C++, JavaScript (Node.js, React), SQL
Technical Expertise: Versioning Control (Git), Make, Networking Protocols (TCP), Multithreading (OpenMP)

PROFESSIONAL EXPERIENCE

SIGMA Research Lab @ UChicago   Chicago, IL
Research Assistant   June 2023 – Present

- Escape Sensing Games: Developed a mathematical model of strategic camouflaging games alongside professor Haifeng Xu and one of his PhD students. Wrote integer linear programming scripts in Python (using scikit-learn and Gurobi) to efficiently calculate the optimal strategy for 1000s of iterations, providing a benchmark for other optimization heuristics (eg. simulated annealing, LP-relaxations). Work appeared in a paper jointly published with Harvard in ECAI 2024: https://arxiv.org/pdf/2407.20981
- Bargaining with Large Language Models: Testing the efficacy of LLMs in adversarial bargaining scenarios against potentially irrational opponents. Developing a model (hopefully!) capable of strategic bargaining using the OpenAI API. Project currently in progress.

UChicago Mathematics Department   Chicago, IL
Course Assistant   September 2023 – March 2024

- Contributed to the learning experience of ~40 undergraduates in the UChicago mathematics department over two quarters. Responsibilities included hosting weekly tutorial sessions, hosting office hours, grading weekly assignments, and attending lectures.

Steamoji   Vancouver, BC
Facilitator   July 2022 – September 2022

- Led STEM-focused lesions for 20 middle- and high-school students. Topics of instruction included mathematics, engineering, programming, and robotics.

PROJECTS

Bayesian Hyperparameter Optimization | Python (NumPy, PyTorch)
Project Link: https://github.com/KimchiLim/Bayesian-Optimization

- Implemented the Bayesian Optimization algorithm with Gaussian process regression to model the hyperparameter space of a convolutional neural network, allowing for the efficient tuning of hyperparameters with limited training.
- Model performance matched that of a conventionally tuned CNN (grid search, random search) with 3-10x decrease in tuning time.

ChiRouter – CMSC 23320 Project | C
Project Link: https://chi.cs.uchicago.edu/chirouter/index.html

- Implemented an IPv4 router in C, with RFC-compliant executions of ARP requests/replies, IP forwarding, IP/Ethernet header construction/modifications, and ICMP protocol responses.
- Utilized multithreading to update routing table in accordance to ARP replies while simultaneously replying to and forwarding IP frames.