Kevin Lim
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EDUCATION

The University of Chicago Chicago, IL
BS/MS Computer Science, BS Mathematics | GPA: 3.56/4.00 Expected June 2025
Relevant Coursework: Abstract Algebra, Advanced Algorithms, Complexity Theory, Computer Architecture, Computer Networks, Computer Systems, Discrete Math, Linear Algebra, Machine Learning, Mathematical Probability, Ordinary Differential Equations, Real Analysis
Awards: Putnam Mathematics Contest – Top 25%

TECHNICAL SKILLS

Programming Languages: Python (Django, NumPy, TensorFlow), C, C++, JavaScript (Node.js), R, SQL (MySQL)
Familiar With: REST API Architecture, MongoDB, Versioning Control (Git), Networking Protocols (TCP/UDP)

PROJECTS

Bayesian Hyperparameter Optimization | Python (NumPy, PyTorch)
GitHub 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.

WORK EXPERIENCE

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

- Designed and implemented optimization algorithms using Python to model strategic interactions between adversarial agents, gaining valuable experience with popular computational frameworks/tools such as NumPy, scikit-learn, PyTorch, and Gurobi.
- Work done on developing integer linear programs for determining optimal scheduling in certain games appeared in a paper published in ECAI 2024: https://arxiv.org/pdf/2407.20981

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

- Fall 2023: Led tutorial sessions twice weekly for students in MATH 10500 Fundamental Mathematics I at the University of Chicago. Responsibilities included fielding individual questions and administering assessments, as well as grading weekly problem sets.
- Winter 2024: Grader for advanced calculus course MATH 18300 Mathematical Methods in the Physical Sciences I.

Steamoji Vancouver, BC
Facilitator July 2022 – September 2022

- Led STEM-focused lessons for middle- and high-school students on topics such as mathematics, programming, engineering, and robotics.

COMMUNITY LEADERSHIP

UChicago Badminton Club – Logistics Director September 2022 – June 2024

- Serviced over 200 club members by buying/distributing rackets and shuttles.
- Helped maintain the club website, which facilitates court reservations via an online booking system.