

Huy Dinh Tran

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EDUCATION

University of Kansas Ph.D Computer Science Advisor: Prof. Mohammad Alian (Cornell University)	08/2023 — Present
University of California, Riverside M.S. Computer Engineering Advisor: Prof. Daniel Wong	09/2021 — 03/2023
Pennsylvania State University B.S. Electrical Engineering	08/2017 — 05/2021

EXPERIENCE

University of Kansas <i>Graduate Teaching Assistant</i>	Lawrence, KS 08/2024 — Present
<ul style="list-style-type: none">Served as a teaching assistant for Software Engineering II (EECS 581) and Computer Science and Interdisciplinary Computing Capstone (EECS 582)Supervised and mentored 7 senior undergraduate teams on complex design projectsConducted weekly meetings to provide guidance, resolve challenges, and ensure project success	
<i>Graduate Research Assistant</i>	08/2023 — 08/2024
<ul style="list-style-type: none">Researched processor microarchitecture designs to enhance performance and efficiency in datacentersDeveloped custom applications and microbenchmarks for evaluating architectural designsEnhanced a full-system simulator by implementing new features to support research experiments	
Futurewei Technologies <i>Research Intern</i>	San Jose, CA 08/2022 — 09/2022
<ul style="list-style-type: none">Simulated RISC-V CPUs in Linux Full-System simulation mode using gem5Cross-compiled binaries of SPEC CPU 2017 benchmarks to RISC-V for measuring the performance of CPU designsIntegrated SimPoint to create checkpoints at ROIs for speeding up the simulation while still representing the workloads	

PUBLICATIONS

Amin Mamandipoor*, **Huy Dinh Tran***, Mohammad Alian, “SDT: Cutting Datacenter Tax Through Simultaneous Data-Delivery Threads,” CAL 2025

* Equal contribution

PROJECTS

Building custom GPU power models with AccelWattch	Spring 2022 — Spring 2023
Implemented a GPU power model using AccelWattch; profiled GPUs to analyze power usage and performance counters; simulated benchmarks on GPGPU-Sim, achieved an average MAPE of 63.42% between simulated and real power data	
Sparse matrix-vector multiplication (SpMV)	Fall 2022
Developed sequential and parallel Sparse Matrix-Vector Multiplication in C with OpenMP; converted matrix formats from COO to CSR and CSC; achieved 3.93x speedup using 8 threads	
Soccer matches prediction	Spring 2022
Implemented multiple ML classification models in Python using scikit-learn and from scratch using NumPy and Pandas; achieved prediction accuracy of 81.25% using K-Nearest Neighbors	

SKILLS

Language: C/C++, Python, Bash, LaTeX, MATLAB

Software & Tools: Git, gem5, Intel VTune, Intel CAT, Intel DPDK, GDB, Docker, OpenMP, GPGPU-Sim