

# Huy Dinh Tran

huydinhtran@ku.edu — +1 (814) 826-8581 — LinkedIn — GitHub — Website

## EDUCATION

---

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

## EXPERIENCE

---

<b>University of Kansas</b> <i>Graduate Teaching Assistant</i> <ul style="list-style-type: none"><li>Assisted in teaching, grading, and providing feedback for Software Engineering II (EECS 581)</li><li>Supervised and offered mentorship to 7 senior undergraduate teams on complex design projects</li><li>Conducted weekly meetings to provide guidance, resolve challenges, and ensure project success</li></ul>	Lawrence, KS 08/2024 — Present
<i>Graduate Research Assistant</i> <ul style="list-style-type: none"><li>Researched processor microarchitecture designs aimed at improving datacenter performance and efficiency</li><li>Developed custom applications and microbenchmarks for thorough evaluation of architectural designs</li><li>Implemented new features in a full-system simulator to support research experiments</li></ul>	08/2023 — 08/2024
<b>Futurewei Technologies</b> <i>Research Intern</i> <ul style="list-style-type: none"><li>Simulated RISC-V CPUs in Linux Full-System simulation mode using gem5</li><li>Cross-compiled binaries of SPEC CPU 2017 benchmarks to RISC-V for measuring the performance of CPU designs</li><li>Integrated SimPoint to create checkpoints at ROIs for speeding up the simulation while still representing the workloads</li></ul>	Santa Clara, CA 08/2022 — 09/2022

## PUBLICATIONS

---

- Amin Mamandipoor, **Huy Dinh Tran**, Mohammad Alian, “*SDT: Cutting Datacenter Tax Through Simultaneous Data-Delivery Threads*” (Under Review, ISCA 2025)
- Amin Mamandipoor, **Huy Dinh Tran**, Mohammad Alian, “*Simultaneous Multithreading in gem5 Full System Simulation*” (In Preparation)

## PROJECTS

---

<b>Building custom GPU power models with AccelWattch</b> 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	Spring 2022 — Spring 2023
<b>Sparse matrix-vector multiplication (SpMV)</b> 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	Fall 2022
<b>Soccer matches prediction</b> 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	Spring 2022

## SKILLS

---

**Language:** C/C++, Python, Bash, LaTeX, MATLAB  
**Software & Tools:** Git, gem5, Intel VTune, Intel CAT, GDB, Docker, OpenMP, GPGPU-Sim