Yuan Hsi (Tommy) Chou

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Education

University of British Columbia, Vancouver   2019 – Expected 2024
Ph.D. Candidate in Electrical and Computer Engineering
Research Topics: Ray Tracing Acceleration in GPUs, GPU Architecture
Supervisor: Dr. Tor M. Aamodt

University of Michigan, Ann Arbor   2017 – 2019
Master of Science in Engineering, Electrical and Computer Engineering   GPA: 3.79/4.00

University of Texas, Austin   2013 – 2017
Bachelor of Science in Engineering in Electrical & Computer Engineering   GPA: 3.52/4.00

Work Experience

Huawei, Canada   May 2021 – Aug 2021
Intern - Rendering Researcher
- Improved denoiser quality and performance for ray traced ambient occlusion, reflection, and caustics effects for an in-house hybrid renderer (rasterization + ray tracing) using Vulkan API

Taiwan Semiconductor Manufacturing Company (TSMC), Taiwan   June 2018 – August 2018
Intern – Design Technology Platform (DTP)
- Designed a high performance compact masked AES core with side channel protection in TSMC 22nm technology
- Performed DPA and CPA side channel attacks on the implemented design with CustomSim simulation
- Research paper accepted in VLSI-DAT 2019 conference

Advanced Semiconductor Engineering Inc. (ASE), Taiwan   May 2015 – August 2015
Intern - Electrical Lab
- Developed a trace structure used in flip chip packaging that achieved low insertion loss at high frequencies
- Conducted 3D EM simulations with ANSYS HFSS on chip packages
- Research paper accepted in IEEE ECTC 2016 conference

Skills

Programming / Technologies	C, C++, Verilog, Python, CUDA, OpenGL, Vulkan, Git, Linux
Architectural Simulators	GPGPU-Sim
EDA Tools	Cadence Virtuoso, VCS, Innovus, Design Compiler, CustomSim, ModelSim, Quartus
Spoken Languages	English, Mandarin