ZHENG ZENG

Resume for Internship

UCSB, CA — zhengzeng@ucsb.edu — zheng95z.github.io

AVAILABILITY

Full-time internships: every summer (June to September).
Part-time internships: throughout the rest of the year.
(Part-time internships are for compiling knowledge from full-time to papers, or working on important problems with my supervisor only.)

EXPECTATIONS FOR INTERNSHIP

- **Important problem**: working on problem matters to me, you, and others.
- **Measureable outcomes**: patents, papers, and tech transfers.

SKILL SET

Real-time Rendering

- Temporally Reliable Motion Vectors for Real-time Ray Tracing (Eurographics 2021 and RTG II)
- Ray-aligned Occupancy Map Array for Fast Approximate Ray Tracing (EGSR 2023)
- Lightweight Neural Basis Functions for All-Frequency Shading (SIGGRAPH ASIA 2022)
- ExtraSS: A Framework for Joint Spatial Super Sampling and Frame Extrapolation (SIGGRAPH ASIA 2023)

Neural Networks

- Denoising Stochastic Progressive Photon Mapping Renderings Using a Multi-Residual Network (CVM 2020)
- Joint SVBRDF Recovery and Synthesis From a Single Image using an Unsupervised Generative Adversarial Network (EGSR 2020)
- Lightweight Neural Basis Functions for All-Frequency Shading (SIGGRAPH ASIA 2022)
- ExtraSS: A Framework for Joint Spatial Super Sampling and Frame Extrapolation (SIGGRAPH ASIA 2023)

(Non-first author papers are marked in gray.)

RESEARCH INTERESTS

My research mainly focuses on real-time rendering, light transport algorithms, material modeling, and exploring how emerging technologies can aid rendering (for example, machine learning in this decade).

EDUCATION

University of California, Santa Barbara   September 2021 — current
Ph.D. student
Computer Science

Shandong University   September 2014 — 2021
Bachelor's and Master's Degree
Software Engineering

EXPERIENCE

Adobe   San Jose, CA
Research Scientist/Engineer Intern   June 2023 - Feb 2024

- Diffusion models enlightened by rendering knowledge.

NVIDIA Applied Deep Learning Research, NVIDIA   Santa Clara, CA
Research Intern   June 2022 - March 2023

- Real-time ray tracing and machine learning.