

Quanquan Peng

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EDUCATION

Shanghai Jiao Tong University

Bachelor of *Computer Science*

Shanghai, China

Aug. 2021 - Present

- Member of ACM Honors Class, an elite CS program for top talented students

RESEARCH EXPERIENCE

Machine Vision and Intelligence Group

Undergraduate Researcher, coadvised by Prof. Cewu Lu and Prof. Yonglu Li

SJTU, Shanghai, China

Jul. 2023 - Present

Research Topic: Dexterous hands manipulation, Imitation learning, and Reinforcement learning

Personal Robotics Lab

RA, advised by Prof. Siddhartha Srinivasa

UW, Seattle, WA

Jul. 2024 - Present

Research Topic: Physics-aware bimanual robotic manipulation

PROJECTS

GH-NeRF

Outstanding course project of Machine Learning | Python

A NeRF-like model that uses multivariate Gaussian Distribution along with Spherical Harmonics accelerates the training process by 25% and effectively tackles the excessively blurring/alias problems, resulting in an additional reduction of the error rate by 6.4% on the LLFF dataset compared to NeRF's original implementation.

Google File System

Golang

A simple implementation of the Google File System (GFS), a distributed file system developed by Google to provide efficient, reliable access to data using large clusters of commodity hardware.

Compiler for Mx* Language

Java

A handmade compiler translating Mx* language (which is a C++ and Java like language) into RV32I Assembly.

Designed based on LLVM IR, it achieved a performance close to GCC O2 on test cases with many optimizations.

RISC-V CPU

Verilog

Implemented a RISC-V CPU in Verilog HDL, utilizing the Tomasulo algorithm for dynamic scheduling. Successfully make it executed on an FPGA board.

peaCore: Rust Kernel

Rust

peaCore is a toy operating system kernel implemented in Rust language, which supports RISC-V privileged mode, process scheduling, file system, etc.

HONORS & AWARDS

Scholarship

- 2023 Huawei Scholarship
- 2022 Foresight-Sequoia Talent Development Fund
- 2022, 2023 Zhiyuan Honorary Scholarship (Top 1% in Shanghai Jiao Tong University)

Programming Competition

- Gold Medal, The 2021 ACM-ICPC Asia-East Continent Final Contest
- Gold Medal, The 2021 ACM-ICPC Asia Shanghai Regional Contest
- Gold Medal, The 2021 CCPC Weihai Site Programming Contest
- Silver Medal, The 2021 ACM-ICPC Asia Macau Regional Contest

TEACHING

Shanghai Jiao Tong University ACM-ICPC Team

Co-coach

Jun. 2023 - Present

Data Structure

Teaching Assistant with Prof. Yong Yu

Mar. 2023 - Jun. 2023

SKILLS

Programming Languages: Python, C/C++, Rust, Java, Golang, and Verilog