

# Renyi Yang

✉ renyi.yang@grenoble-inp.org [mail] 📞 (+33) 06 51 67 12 78

🐙 Github: Renyi Yang [web] 🏠 Personal Website [web]

## EDUCATION

### ShanghaiTech University [web]

B.ENG. in Computer Science and Technology

- GPA: 3.82/4.0 — Major GPA: 4.0/4.0
- Rank (CS): 10/171 — Rank (CS + EE): 16/266

Shanghai, CN

Sep. 2023 - Current

### Grenoble INP [web]

Signal Image Processing Methods and Applications

Grenoble, FR

Jan. 2026 - Current

## INTERNSHIP

### Advanced Micro Devices, Inc. [web]

AI Software Engineer Intern

- Developed **HeteroOCR**, an CPU/GPU/NPU-optimized OCR system for complex documents.
- Showcased at **CIIE 2025** as AMD's flagship NPU-AI demo.

Sep. 2025 - Jan. 2026

### Shanghai Azimuth Data Technology Co., Ltd. [web]

Software Engineer Intern

- Developed a **multi-COM** GNSS client that concurrently parses **NMEA 0183** and **RTCM 3.3** streams
- Built a **LAN-based** simulator client to both ingest and transmit messages

Jul. 2025 - Sep. 2025

## RESEARCH EXPERIENCE

### Post-Moore Microelectronics and Integrated Circuit Center (PMICC) [web]

Research Assistant, advised by Dr. Yajun Ha

- Accelerated ResNet50 inference on an NPU using **MLIR-AIE**
  - Mapped compute/dataflow, optimized tensor tiling and on-chip buffer reuse
- Developing a **high-throughput Chinese OCR** pipeline for heterogeneous case files
  - Layout, Detection, Recognition

Jul. 2025 - Current

### Network Intelligence Center (NICE) [web]

Research Assistant, advised by Dr. Dingzhu Wen

- Implemented and evaluated FL algorithms optimized for **resource-constrained** environments

Jul. 2024 - Jun. 2025

## COURSE PROJECTS

### Network on acoustic link [code]

Team Leader

A **Go**-based acoustic communication system

- Physical, MAC, Network, Transport, Application layers

Sep. 2025 - Dec. 2025

### Oat Compiler [opt] [type-check]

Team Leader

A simple **compiler** written in **OCaml**

- Lexing, Parsing → LLVM → Assembly, with Type Checking, Optimization

Sep. 2025 - Dec. 2025

### Pintos [code]

Team Leader

A simple **operating system** framework

- Threads, User Program + Syscalls, Virtual Memory and File System

Mar. 2025 - Jun. 2025

### Plants vs. Zombies [code]

Personal Project

A PvZ game based on **C++** with **CMake**

May 2024 - Jun. 2024

## VOLUNTEERING

### Volunteer for summer and winter activities [web]

Teaching Assistant

**136 Hours** in total, providing lessons using specialized teaching methods and materials

June 2023 - Aug. 2024

## AWARDS & HONORS

- **AMD Open Hardware 2025 Competition [web]**: HeteroOCR

## TECHNICAL STRENGTHS

Programming Languages

Go, C&C++, Ocaml, Python, Matlab, RISC-V, X86lite

Framework & Toolchain

Git, Linux, Docker, Conda, Vim, GNU Make, CMake

Misc

LaTeX, Markdown, Marp