Nanpanjiang Project

Assist Female Engineers Succeed in Compilers and Tools

Ji Qiu

lsqiuji@gmail.com

About me: Ji Qiu

- Founder of Nanpangjiang Project (https://github.com/hellollvm/nanpanjiang-project/) (2023-)

- Technical director of PLCT Lab, ISCAS (2019-): Compilers, Runtimes, and Simulators (https://github.com/plctlab)

- Chair of HelloLLVM (https://hellollvm.org/)   (2023-)

- RISC-V ambassador

- 18 years experience in CPU architecture and HW/SW co-design, system software development, maintainer of V8 for RISC-V

- Ph.D. of Computer Architecture

The birth of Nanpangjiang project

- Established in 2023 by the HelloLLVM* community in mainland China

- Originated from the first "Women in Compilers and Tools Workshop" (WiCT), initiated by the LLVM Foundation in August 2018

- Dedicated to assisting more female engineers achieve their personal career goals in fundamental software areas such as compilers and virtual machines

* https://hellollvm.org/

The Nanpanjiang River originates in my hometown, Yunnan.

It is the source of the Pearl River, the largest river in southern China.

Water is the source of life and strength.

May the Nanpanjiang Project bring more opportunities and courage to women in compiler technology.

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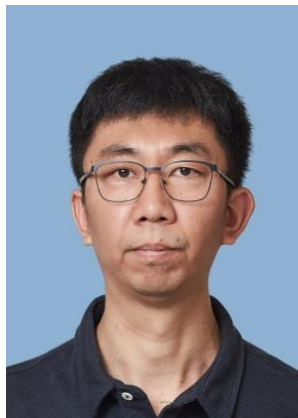
* https://community-dot-o.llvm.org/wict-meetups/

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https://github.com/hellollvm/nanpanjiang-project

12 Long Term Mentors

MingJie Xing
Compiler Principles

Wei Wu
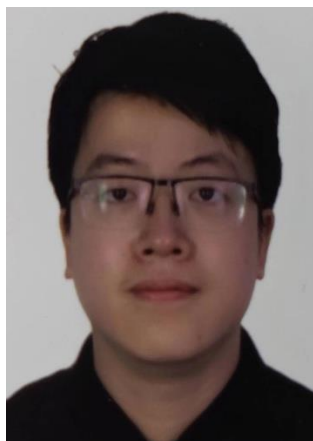Project Management

Ningning Shi
LLVM/ART/OpenArk

Ji Qiu
CPU/ASIP/VM

Xiaofang Zou
LLVM/GCC/Go/DSA

Chunyu Liao
LLVM/DSP/ISA

Jiawei Chen
GCC/Binutils/ISA

Hongbin Zhang
MLIR/Buddy Compiler

Yahan Lu
JS Engine

Yang Liu
VM/BT

Shihua Liao
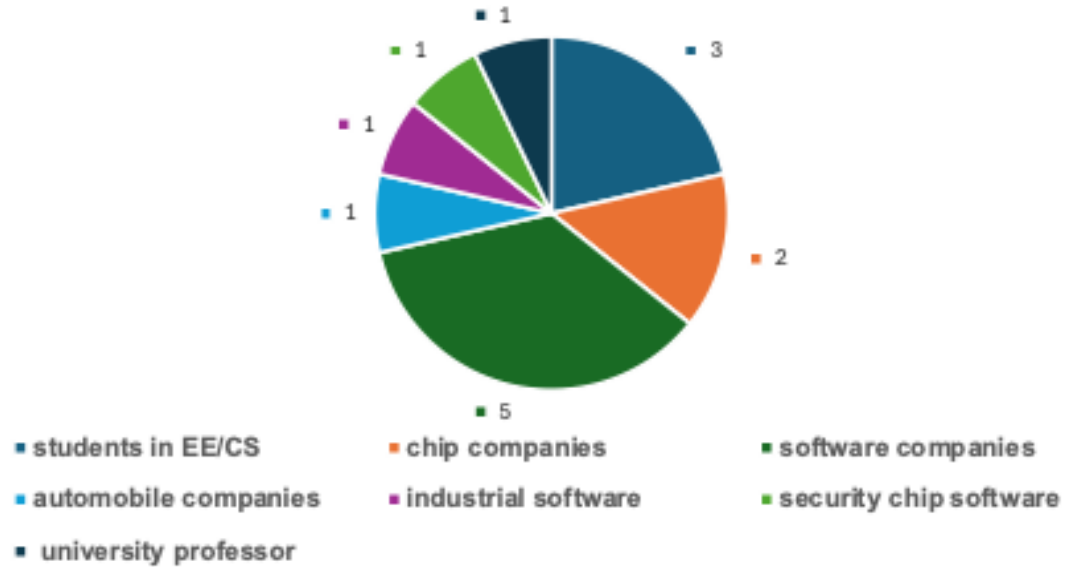GCC/RISC-V

Jiacheng Zhou
OS

Project offerings

- 20+ compiler technology seminars
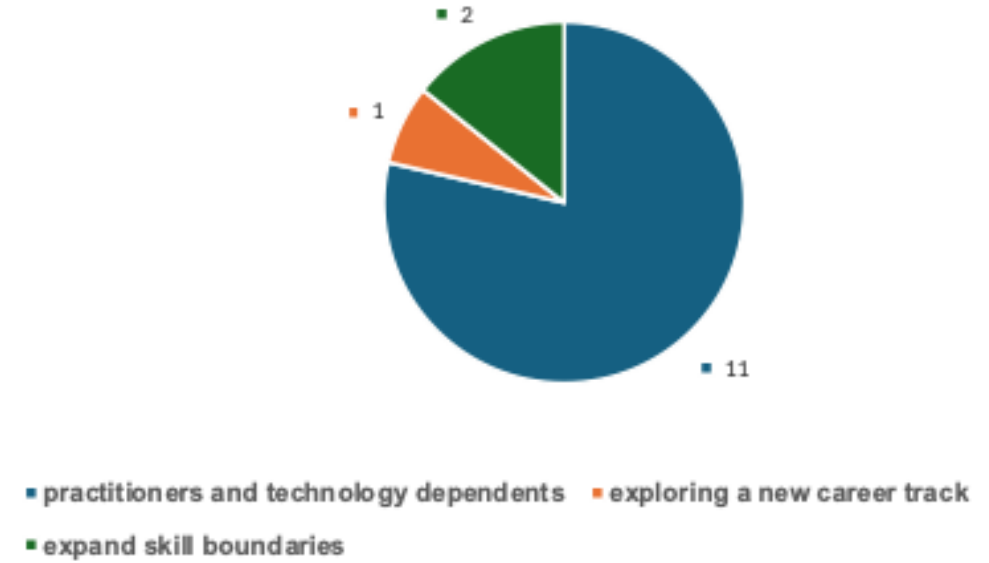
  - core components and basic compiler concepts

  - tips for communication in open-source projects

  - career planning

14 members joined

Participant Industry Distribution

- students in EE/CS — 3
- chip companies — 2
- software companies — 5
- automobile companies — 1
- industrial software — 1
- security chip software — 1
- university professor — 1

Growth Goals Distribution

- practitioners and technology dependents — 11
- exploring a new career track — 1
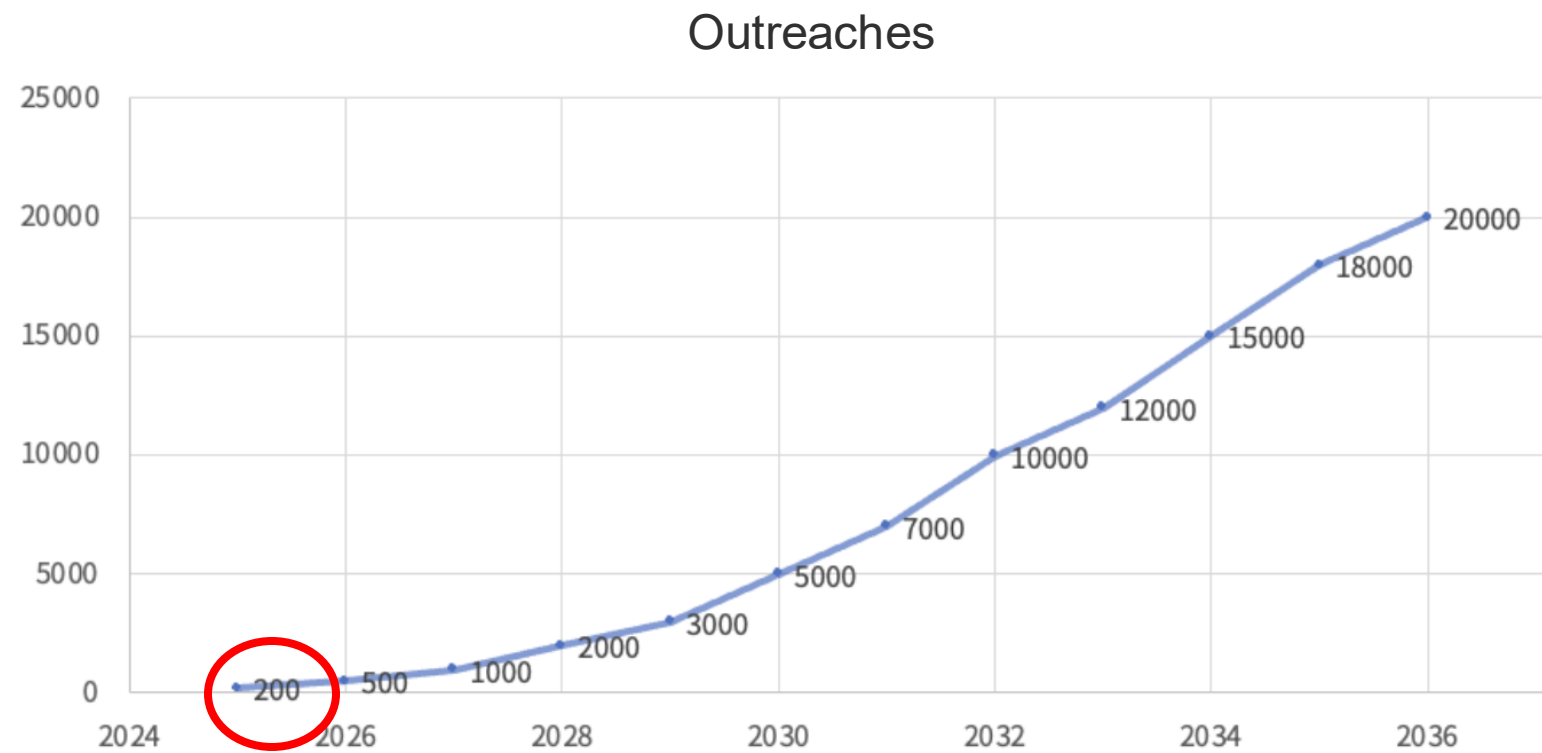- expand skill boundaries — 2

Achievements

- continuous course, discussion, and mentorship

- A successfully submitted her first PR to the BUDDY-MLIR repo, and it was merged. She entered the compiler technology industry after graduation

- B had multiple exchanges with her long-term mentor regarding LLVM's GPU backend. After completing her graduation project, she became a deep learning compiler engineer

- C completed the arch port of the GNU profile tool and unstreamed

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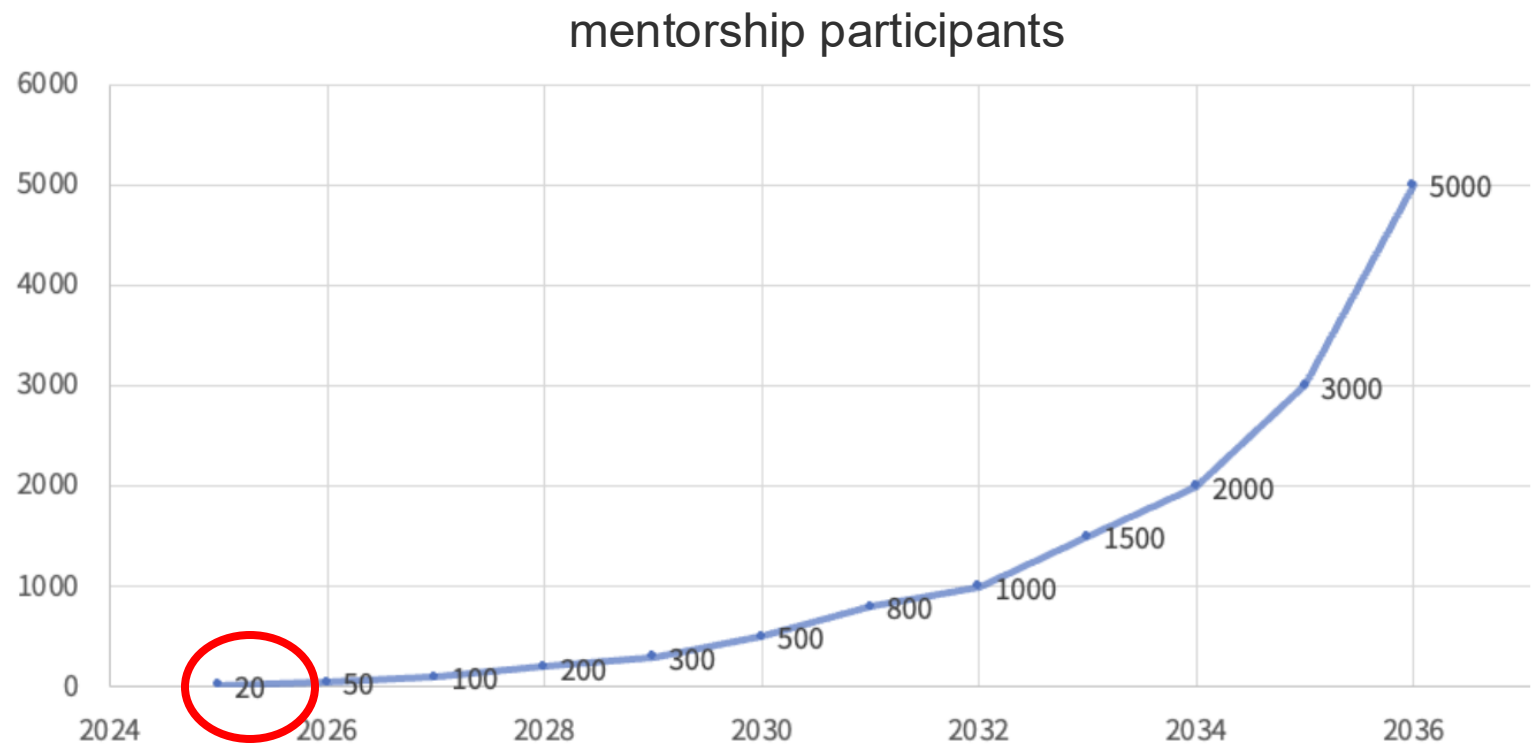- C completed the arch port of the GNU profile tool and unstreamed

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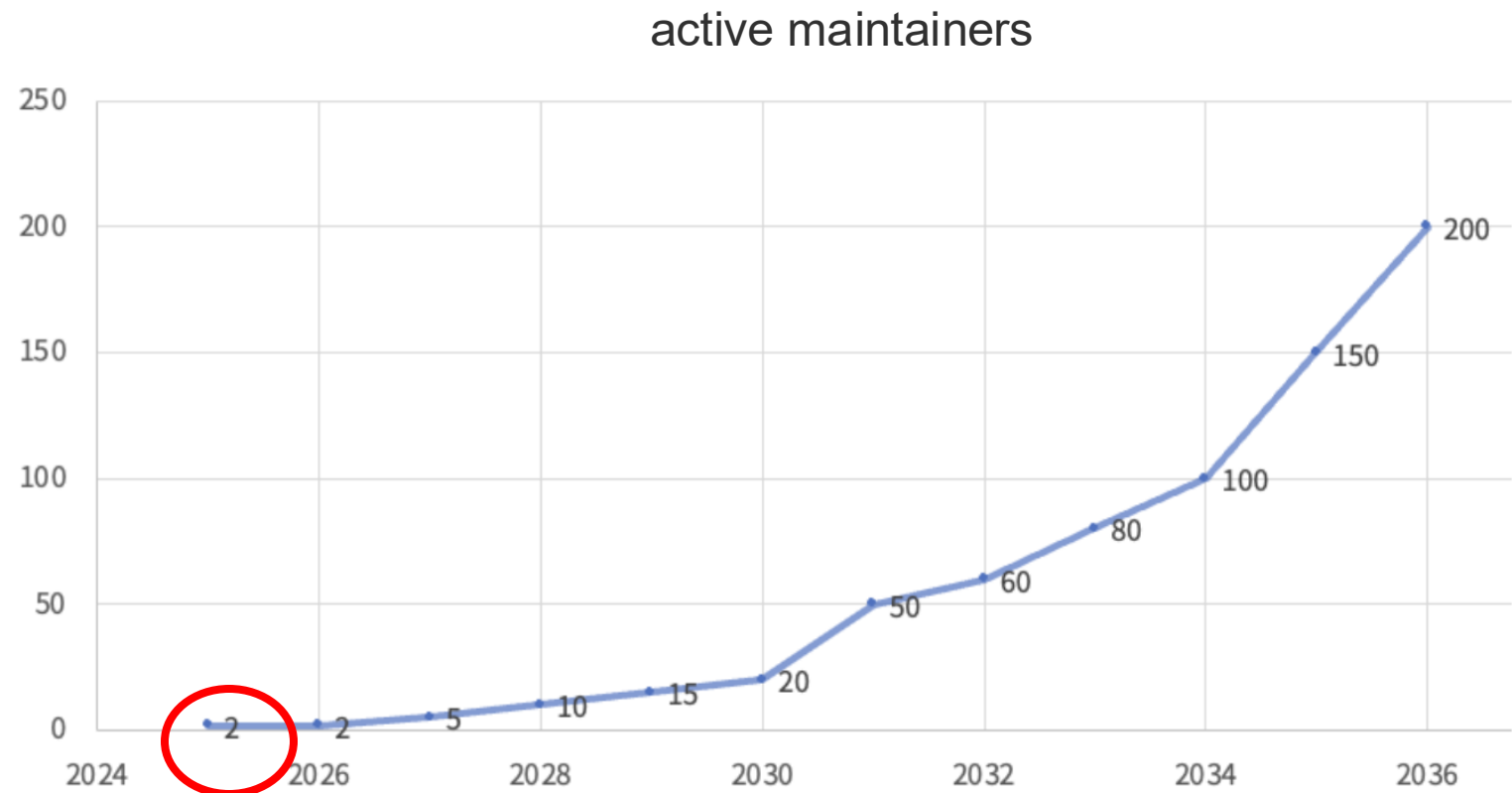
Prospect from now to 2036- Outreaches

Outreaches

from 200 in 2025 to 20,000

Prospect from now to 2036-mentorship participants

mentorship participants

from 20 to 5,000

Prospect from now to 2036-active maintainers
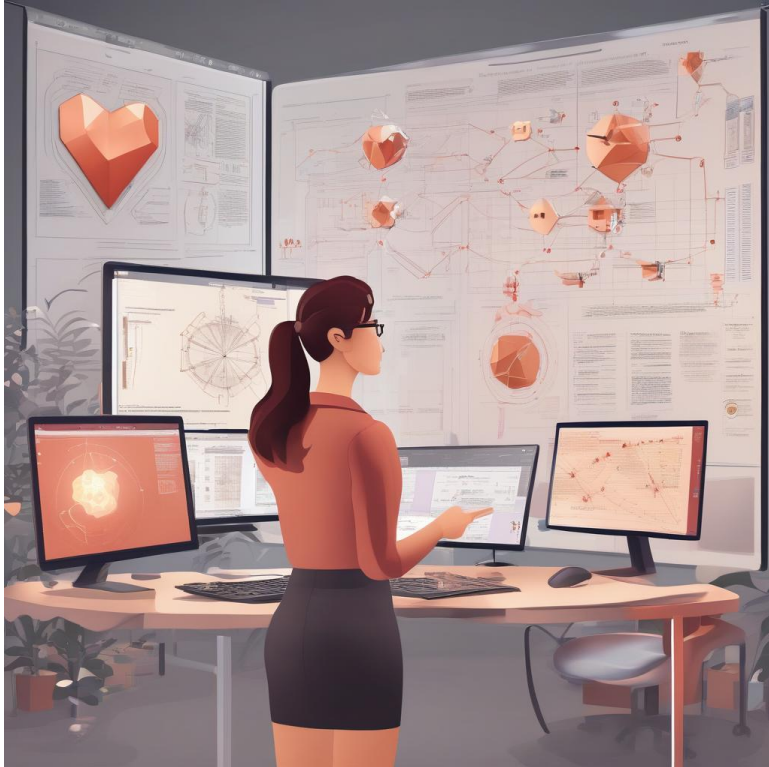
active maintainers

from 2 to 200

Join together!
Taking Action for a Better Future

- connect to LLVM WiCT

- more local offline activities

- expand the outreach of the program

- welcoming everyone who supports and helps

Contact us：

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