Projects Experience

- eunomia-bpf (2k+ stars; listed on landscape of ebpf.io and cncf.io) Founder and Main Developer Organization oriented for exploring the technology combining eBPF/WebAssembly/AI. Mar. 2022 Now
 - **bpftime** ①: A userspace eBPF runtime. It offers rapid uprobe 10x faster than kernel uprobes, and syscall hook capabilities. It's compatible with kernel eBPF and existing eBPF toolchains, and can be injected into any running process without restart or manual recompilation. I'm invited to present it at Linux Plumbers Conference 2023.
 - Wasm-bpf ①: Cooprated with WaseEdge, we build the first user-space development library, toolchain, and runtime for general eBPF programs based on WebAssembly, allows lightweight Wasm sandboxes to deploy and control eBPF applications in k8s clusters. I'm invited to present it at KubeCon North American 2023.
 - **GPTtrace** Ω : The first tool generates eBPF programs and traces the Linux kernel through natural language. With our AI agents, it can produce correct eBPF programs on 80%, while a baseline of GPT-4 is 30%.
 - **eunomia-bpf framework** A lightweight CO-RE development framework for simplifying the development, distribution and running of eBPF applications.
 - **bpf-developer-tutorial ①**: eBPF Tutorial by Example: Learning eBPF Step by Step with Tools. Has gained more than 200k readings, in both Chinese and English.
- Personal Open-sourced Projects (2.2k+ stars in my <u>Github</u> account.) Individual Developer Projects including complier, ChatGPT-plugin, eBPF Tools
 - \circ ChatGPT-github-stat-plugin Ω : A ChatGPT Github data statistics and analysis plugin, listed on the official OpenAI marketplace.
 - \circ gplates-wasm Ω : Porting a complex Qt-based desktop software to WebAssembly and deploying it on AWS service.
 - Nginx-Lua-eBPF-Toolkit Develop eBPF Toolkit in APISIX Community
 - Other Personal Projects: <u>COVID-19 NLP Vis website</u>; A minimal C language interpreter named <u>tryC</u>; GPT powered translator in GitHub Actions
 - o Contributed to Projects: bcc, WasmEdge, xquic
- Open-source Community Contributions: bcc, WasmEdge, libbpf-bootstrap, gosec, and others.

Working Experience

• PLCT Lab Remote, China

 $Toolchain\ Development\ Intern$

Nov. 2022 - July. 2023

- **Project Leadership**: Led the eBPF team with 2 or 3 people in maintaining the eunomia-bpf open-source community and contributed to the upstream eBPF/Wasm community.
- Shanghai Naive Systems Technology Co., Ltd

Shanghai, China

Static Analysis Intern

Nov. 2021 - Oct. 2022

- Static Analysis Development: Designed and implemented 20+ static analysis checkers using tools like clang static analyzer, infer, and clang libtooling, adhere to standards like MISRA C:2012, MISRA C++:2008, and GJB8114.
- Go Static Analysis Tool Development: Created a Go static analysis tool based on Go's AST and SSA. Integrated it with other open-source products for enhanced functionality.

• Repomono Shanghai, China

 $Backend\ Development\ Intern$

Sep. 2020 - Jun. 2022

• **DevOps Toolchain Development and Optimization**: Contributed to the development and optimization of DevOps toolchains for monorepos, improving efficiency and productivity.

EDUCATION EXPERIENCE

• Zhejiang University

Hangzhou, China

Bachelor of Geographic Information Science

Sep 2018 - July 2023

- Main courses: Object-Oriented Programming, Operating Systems, Computer Networks, Advanced Data Structures & Algorithm Analysis, Software Engineering, Spatial Databases, Computer System Architecture, Compiler Principles, etc.
- National Computer System Development Capability Competition Final First Prize 2022 & 2023: As a team Leader in 2022, Project: "Container Monitoring Tool Based on eBPF". As a mentor in 2023 for "Sandbox File System Based on eBPF"

TECHNICAL STACK KEYWORDS

- **Programming Languages**: Familiar with C/C++, Rust, Golang, Python, can write JavaScript/TypeScript, HTML, CSS with the help of LLM
- Development Frameworks & CI/CD: Github Actions, Next.js, React, Flask, Github Actions
- Tools & Cloud Services: Linux, Git, Docker, AWS, Cloudflare
- Runtime & Toolchain: WebAssembly, eBPF, LLVM, Clang
- AI & LLM: OpenAI, langchain