

# CHEN ZHIYANG

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## Education

Bachelor of Engineering in Computer Science and Technology at **Beijing Technology and Business University**, Beijing, China Sep, 2019 – Jun, 2023

## Brief Situation

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## Self Introduction

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## Honors and Awards

National Grand Prize in the Operating System Race Functional Challenge, 2023 Computer System Development Capability Competition Aug, 2023

First Prize in Group B, The 13th Lanqiao Cup National Competition for Software and Information Technology Professionals (Beijing Region) - C/C++ Programming May, 2022


Second Prize in Group B, The 12th Lanqiao Cup National Competition for Software and Information Technology Professionals (Beijing Region) - C/C++ Programming May, 2021

Third Prize, Functional Design Track of Operating System Race, 2022 Computer System Development Capability Competition Aug, 2022

Third Prize, Kernel Implementation Track of Operating System Race, 2021 Computer System Development Capability Competition Aug, 2021

## Academic Experience

**Operating System Race Functional Challenge, 2023 Computer System Development Capability Competition**, BTBU Feb, 2023 – Aug, 2023

Leader, Source-level OS Debugging Tools with Rust Language Support ( [chenzhiy2001/code-debug](https://github.com/chenzhiy2001/code-debug))

- Supported source code trace debugging across kernel state and user state based on QEMU and GDB
- Supported performance monitoring and analysis across kernel and user states based on eBPF
- Supported the combination of breakpoint debugging and performance testing based on VSCode to build remote development environments

Aug, 2021 – Sep, 2021

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Beijing College Students’ Scientific Research and Entrepreneurship Action Plan Feb, 2021 – Oct, 2021


Leader, Research and Implementation of Internet of Things Operating System Kernel Based on K210 Development Board

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## Internship

**Quan Cheng Laboratory**, Jinan, Shandong Jan, 2024 – Feb, 2024

Flexible Researcher, Secure Operating System Kernel Project

- Adapted the ( [chenzhiy2001/code-debug](https://github.com/chenzhiy2001/code-debug)) OS debugging tool for the new operating systems (ArceOS and Starry) being developed by the Secure Operating System Kernel Project
- Prepared support documents and videos based on colleagues’ feedback after using the OS debugging tool and simplified the installation and configuration process
- Promoted the use of the OS debugging tool to students (about 20 in total) who are interested in learning OS at two universities (Beijing Technology and Business University and Henan University of Science and Technology) via video conference

## Skills

- Programming Languages: comfortable with TypeScript Python Rust Java C C++.
- IDE Tooling: **2 years of experience**, familiar with VSCode plugin development.
- Tools: editor-agnostic, have experience with team tools like Github and more.

## Publications & Patents

- [1] Z. Chen, Y. Yu, Z. Li, and J. Wu, “An Online Debugging Tool for Rust-based Operating Systems,” in *Rust Education Workshop*, 2022.
- [2] J. Wu, L. Zhang, Z. Chen, and Y. Xiang, “Method and Apparatus for Debugging Operating System Source Code Across Kernel State and User State. C.N. Patent 2023115942620, Mar. 2024”
- [3] X. Zhao, Z. Chen, L. Zhang, T. Yu, and P. Chunyi, “A Portrait Ranging Method Based on K210 Internet of Things System. C.N. Patent 2023115942620, May. 2021”