YANTAO ZHANG

Embedded Software Development

3 Years of Experience · CET-6 · CPC Member

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EDUCATION

Xi'an Jiaotong University 2020.09 – 2023.06

M.S. in Software Engineering · School of Software Engineering, Faculty of Electronic and Information Engineering

North China University of Science and Technology 2016.09 – 2020.06

B.S. in Electronic Information Engineering · College of Artificial Intelligence

TECHNICAL SKILLS

- **Embedded Systems**: experienced in ARM-based development and the Linux embedded software workflow; capable of chip adaptation, open-source code customization, and boot process optimization
- **Low-Level Development**: familiar with GNSS/positioning module low-level development; experienced in BSP development, board-level debugging, high-precision time synchronization, and protocol stack implementation
- **Programming Languages**: proficient in C/C++ with solid object-oriented design and coding standards; working knowledge of Python
- **Communication & Protocols**: hands-on with GPSD, chronyd, and gPTP; familiar with UART, I2C, SPI, and Ethernet
- **Toolchains**: Git, Shell, GCC, GDB, Makefile, Yocto — full-cycle embedded development and debugging
- **Self-Directed Learning**: completed MIT 6.S081 (Operating System Engineering); familiar with the RISC-V architecture and xv6 kernel design

WORK EXPERIENCE

ZTE Corporation 2023.07 – 2026.07

Embedded Software Engineer · Xi'an

- Responsible for the full lifecycle of embedded positioning services, time synchronization, and GNSS module development: requirements analysis, open-source code customization, coding and debugging, SDK development, and production maintenance; delivered multiple core technologies and resolved 200+ product issues.

PROJECT EXPERIENCE

ZM9300 Module Positioning Service Development Production Project

Embedded Software Engineer

- Developed an industrial-grade positioning module based on HD8040D/BG1101 chips, with deep customization and extension of GPSD open-source code to deliver high-accuracy, high-stability satellite positioning
- Led the overall design and implementation of the positioning service; completed GPSD customization, chip-level adaptation, and end-to-end integration
- Participated in performance testing and troubleshooting to ensure stability in complex scenarios; adapted the module to 10+ industry terminals with production-grade reliability

High-Precision Time Synchronization Service Development Production Project

Embedded Software Engineer

- Adapted chronyd and the gPTP protocol stack on a proprietary chip running Linux to build an industrial-grade time synchronization service that meets stringent synchronization requirements
- Collaborated with the BSP team on chip and protocol stack adaptation, interrupt configuration, and communication parameter setup
- Participated in testing and performance tuning alongside hardware engineers; resolved 10+ core adaptation issues and achieved 7×24h stable operation without downtime

GNSS Module Maintenance & SDK Development Production Project

Embedded Software Engineer

- Owned full-lifecycle code maintenance, performance optimization, and SDK development for automotive/industrial GNSS modules; produced standardized APIs and documentation for multi-terminal adaptation
- Maintained and iterated GNSS module core code on Linux, optimizing critical processing paths
- Designed automated test cases and a closed-loop bug-handling process; fixed customer-reported and internally discovered bugs

AWARDS

ASC Supercomputer Challenge	*National Second Prize*	Apr 2019
Mathematical Contest in Modeling	*Provincial Second Prize*	Sep 2017