

## Ding Song

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Over 10 years of senior software development and team leadership experience. Worked at ByteDance and Xiaomi. Notable projects include Lark, MiHome, and BDP. Proficient in Frontend development, React Native, and iOS.

### Skills

- **Frontend:** JavaScript, React Native, Node.js, Next.js, Electron
- **iOS Development:** Swift, Objective-C, C, UIKit, CoreGraphics, Runtime
- **AI & Machine Learning (Basic):** Python, TensorFlow, PyTorch

### Experience

**Senior Software Engineer, Manager** 2019.11 – 2024.12

**Xiaomi, MiHome IoT – Wuhan, China**

- Defined IoT and React Native framework quality standards for the 100M+ MAU MiHome platform.
- Conducted data analysis, reduced crash rate to near zero, and improved loading success rate to 99% for 100K+ dynamic plugins, setting an industry benchmark.
- Led a team to upgrade architecture and support new smart door cameras, reviewing requirements, designing technical solutions, and delivering high-quality development.
- Researched and developed a cross-platform JavaScript UI framework inspired by HarmonyOS LiteOS. Independently designed a custom **React Hook and Renderer**, achieving a **lighter and more efficient** rendering mechanism using C and JavaScript via QuickJS and multi-threading.
- Designed and implemented key platform frameworks, including a **general network request scheme** and **SDK decoupling strategy**, significantly enhancing project efficiency and maintainability.

**Senior Software Engineer** 2017.11 – 2019.10

**ByteDance, Lark Docs – Shenzhen, China**

- Core team member of Shenzhen EE, leading the development of **Lark Docs Framework**.
- Optimized the iOS web container by extending native capabilities, adding context menus, custom keyboards, WebP support, and other features via **runtime and JS-bridge** technology.
- Used **URLProtocol and advanced caching techniques** to improve document loading speed, making Lark the fastest mobile document editor.

- Designed and abstracted the **core SDK** to be used across Lark products, including **Lark Calendar**.
- Developed custom UI components with **CoreText** for advanced text rendering and **Yoga-based Flex Layout** to replace UIKit, supporting asynchronous rendering and dynamic loading with Swift Package integration.

**Team Leader** *2015.11 – 2017.10*

**HaiZhi, BDP – Beijing, China**

- Refactored projects using **multi-threading and deep performance optimization** to eliminate UI freezes and achieve instant data loading.
- Led engineering management, team building, code reviews, and technical research.
- Developed a **high-performance data visualization library** using CoreGraphics, supporting **interactive zoom, drill-down, and real-time rendering** of 200K+ landmarks, setting an industry-leading benchmark.

**Firmware Engineer** *2013.07 – 2015.10*

**DediProg – Shanghai, China**

- Developed firmware for chip programming, implementing **I2C, SPI, JTAG** communication via low-level hardware control.
- Optimized **ARM chip programming speed** using Flash IAP, achieving a **9x increase in writing speed**.

**Education** *Bachelor of Science and Technology in Electronic Information*

*2009.09 – 2013.06*

**Xiangnan University, China**

- Founded an electronics R&D lab and led projects on **Linux kernel porting, ultrasonic sensors, and smart car control**, winning national funding and awards.
- Interned on **commercial power signal analysis**, working with Cortex-M microcontrollers and advanced signal processing.