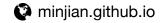
Minjian Liu

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San Diego, United States

Profile

Software Engineer interested in Internet of Things (IoT), Wireless Technologies, and Embedded Systems,

experienced with both designing and programming in bare-metal and RTOS environments for IoT solutions. Currently, focusing on IEEE 802.15.4 and Thread Mesh development.

Education

Stanford University

Graduate Certificate in IoT GPA: 3.85/4.0 Feb. 2021 - Jun. 2023

Johns Hopkins University

M.S. in Computer Science GPA: 3.9/4.0 Aug. 2017 - Dec. 2018

Australian National University

Master of Computing GPA: 6.75/7.0 Feb. 2014 - Dec. 2015

☐ Certificates

Embedded Developer certificated by Beijing Uplooking Technology

Linux Architect

certificated by Beijing Uplooking Technology

Server Developer

certificated by Beijing Uplooking Technology

Course Certificate for Advanced C **Programming**

certificated by Peking University (Coursera)

Experiences

alaaA

Wireless Software Engineer

Dec. 2023 - Present Wireless software and protocol development around IEEE 802.15.4 and Thread **Mesh** technology for Apple products.

Silicon Labs (Silabs)

Boston, United States

Senior Software Engineer

Apr. 2023 - Dec. 2023

• **Zigbee Direct**: Zigbee Direct is a new feature of **Zigbee** that allows **BLE** devices to connect a Zigbee network via a Zigbee Direct Device (ZDD). My responsibility includes the commissioning, security and tunneling implementation for ZDD.

Software Engineer II

Apr. 2022 - Apr. 2023

- Concurrent Multi-Protocol (CMP): CMP empowers a Host-RCP device running Zigbee, Thread, and BLE wireless connectivity concurrently. My responsibility includes the pro-compliance-posix implementation for IEEE 802.15.4 MAC certification, host app optimization (stability and CPU consumption), Silicon Labs' multiprotocol docker container integration, supporting customers with NCP-to-RCP migration.
- Zigbee & Multiprotocol Hardware Continuous Integration (HW CI): HW CI runs Zigbee and Multiprotocol tests automatically with new commits, serving as a guard for development and a checkpoint for release.
- Zig-Dock: Mentored a summer intern to implement Zig-Dock, an architecture and OS independent docker container solution for multiprotocol development. It allows developers to develop, build and run multiprotocol apps on their laptops for different architectures (x84 64, i386, arm32v7 and arm64v8).

Software Engineer

May. 2019 - Apr. 2022

- Multi PAN: a Silicon Labs proprietary Zigbee feature that allows a device to operate on multiple Zigbee networks. These Zigbee networks are able to have different PAN IDs, security levels, and topologies. A multi-PAN device is able to serve different roles (coordinator/end device) in different networks.
- EmberZNet Serial Protocol (EZSP) v8.0: EZSP is used by a host application processor to interact with the **Zigbee** stack running on a Network Co-Processor (NCP). A new frame format has been introduced to reorganize frame segments so as to increase EZSP frame ID from 1 byte to 2 bytes but with the same total frame length.

Google Canberra, Australia

Google Summer of Code Mentor

Apr. 2016 - Aug. 2016

Participated in the GUI design and visualization implementations for Rogas (Relational-Oriented Graph Analytic System, an **Open-Source** project):

- Used Bootstrap and D3.js to implement the GUI design and the graph operation visualization (i.e. graph construction, ranking, clustering, and path-finding) for Rogas.
- Used Tornado web framework to constructing a web server for Rogas.

ANU School of Computing

Canberra, Australia

Nov. 2015 - Feb. 2016 **CECS Summer Intern**

Participated in the Rogas project with following responsibilities:

- Designed the system framework and the SQL-extended query language (RG-SQL).
- Implemented the relation-graph hybrid data model and the query processing engine by integrating PostgreSQL with Graph-tool, SNAP, and NetworkX.