

Westin Waldburger

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Professional Summary

Staff Software Engineer with 8+ years of experience architecting low-latency back-end platform services and embedded firmware within the semiconductor industry. Proven track record driving technical design, coordinating cross-team feature development, and executing project milestones. Contributed to the successful delivery of the T300 RedCap and T900 5G NR modems with tier-one US OEMs. Currently working on next-gen platform architecture and new agentic services leveraging Model Context Protocol (MCP).

Skills

- **Languages:** Python, C/C++
- **AI & Platform Engineering:** Full-Stack Development (React, Flask), MCP Server Design (FastMCP), LLM-driven Workflows, Data Pipelines, REST APIs, Relational Databases (SQL)
- **Systems Engineering:** Embedded Firmware, 5G NR, OTA Configuration Procedures

MediaTek — San Diego, CA

Staff Software Engineer | July 2026 – Present

Wireless Technology Group, Modem Product Engineering

- Lead technical design of MCP-based platform services within the Modem Configuration Framework (MCF) OTA Service Platform, enabling new LLM-driven modem configuration workflows.
- Develop MCF OTA Service Platform, a full-stack framework and backend service used to manage applied sub-module configurations for modem initialization and runtime procedures (e.g., Operator and Network OTA) across different chipset projects.
- Primary US Technical Lead for the MCF sub-module feature development and platform services support for US customers.

Senior Software Engineer | March 2023 – July 2026

Wireless Technology Group, Modem Product Engineering

- Developed core MCF sub-module features to support tier-one US OEMs, directly contributing to the successful commercial launch of MediaTek's T300 RedCap (5G Reduced Capability) modem.
- Optimized the 5G NR-Lite Custom Network OTA Procedure, reducing runtime file processing complexity from $O(N)$ to $O(\log N)$ to accelerate device configuration updates.
- Doubled modem configuration non-volatile memory buffer size support from 64KB to 128KB, unblocking the increased carrier OTA configuration payload size.
- Deployed CLI-based automation tooling to reduce US customers OTA configuration on-target test and verification time by eliminating the need to rebuild the modem image across test plans.

Qualcomm — San Diego, CA

Senior Software Engineer / Software Engineer | July 2018 – March 2023

Wireless R&D, Modem Simulation Platform

- Developed Qualcomm's Prototype Modem Simulator (MSIM), a distributed backend service platform for simulating and validating wireless network protocols over virtualized end-to-end environments.
- Deployed Automation, CI, and Nightly Regression Back-End Services to speed up system verification time and increase software delivery quality.
- Integrated Prototype gNB 3GPP Upper Layer network protocol features, including Link Adaptation (LA), Sounding Reference Signal (SRS), and Position Reference Signal (PRS).

Education

Clemson University - Bachelor of Science, Computer Science | Class of 2018