

Saurabh Srivastava

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Skills

- **Android Framework (AOSP) Architecture** • **Android Location Stack** • **Positioning Technologies**
- **IoT Architecture** • **ThreadX/FreeRTOS IoT RTOS** • **TCP/IP Embedded Stack**
- **WIFI ALG (App Level Gateway) for SIP/RTSP protocols**
- **C/C++** • **C#** • **Java** • Python • Rust • Javascript | • Blazor .NET WebAssembly PWA • ASP.NET
- **Leading Dev Team** • **Leading system design** • **Clear and concise communication**
- **Firebase** • **Sqlite**

Experience - **Qualcomm** (2009-present) (Staff Engineer - since 2020)

Android Location Stack Development (2016-present)

- Designed and Implemented Location stack for Project Treble, which brought in major Architecture update with the system vendor split.
- Develop and support new Google-requested location features with every Android upgrade.
- Designed and Implemented Precise Positioning feature over a Qualcomm SDK meant to deliver premium features to Third Party Android App developers.
- Enhance and support Android Location SDK which enables chipset OEMs to exercise Qualcomm Location module capabilities.
- Guide and train customer engineering teams and occasionally meet with customers on critical location issues.
- Mentor and guide couple of junior developers across different feature implementations.

FreeRTOS (IoT) Location Stack Development (2023-present)

- Architected the complete location stack on FreeRTOS platform for our IoT solution.
- Led the team to implement various modules involved in location stack operation.
- Architected and led implementation for time management module on FreeRTOS for managing time drift from system clock.
- Architected and led implementation for location stack validation suite on FreeRTOS

ThreadX (IoT) Location Stack Development (2016-present)

- Designed and implemented the complete location stack on ThreadX RTOS for our IoT platform.
- Designed and developed a Reference Application for IoT OEMs to demonstrate the concurrent use of GNSS and Data.
- Designed and implemented the location stack API for use in a cloud based IoT positioning system.
- Plan and manage timelines and resources for location feature dev and support for several IoT platforms concurrently.

ALG Development and Voice over WIFI (2012-2016)

- Designed and developed ALG (Application Level Gateway) implementation for SIP (Session Initiation Protocol) for Qualcomm WIFI router platforms.
- Designed and developed ALG implementation for RTSP (Real Time Streaming Protocol).
- Implemented enhancements and supported commercialization for VoWIFI (Voice over WIFI) module by enabling secure IP path from IMS module to VoWIFI servers.

TCP/IP Stack and IP Header Compression (2009-2015)

- Enhanced and maintained the TCP/IP stack on Qualcomm Modem platforms.
- Implemented and maintained several Header Compression protocols such as CRTP (Compressed Real-Time Transport Protocol), RoHC (Robust Header Compression), and IPHC (IP Header Compression).

Education - **B.Tech (Information and Communication Technology)** (DA-IICT) (2005-2009)

- Won several coding contests
- Maze traversal robot
- Library management system for an NGO
- College Election Portal