Alankrit Srivastava

Software Engineer

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WORK EXPERIENCE

Senior Research Engineer
LG Soft India (Software R&D)

03/2023 - Present *Bengaluru, India*

Development of dashplayer2

- Led the development of dashplayer2 in C/C++, that leverages the **Gstreamer multimedia framework** as an underlying engine to handle the multimedia playback in **Linux Application Environment** for the **webOS25** release across **RTK** and **SIC** chipsets.
- Worked on the **middleware feature development** and **bug-fixing** of **dashdemux2** element for compatibility with GStreamer version 1.24.0, ensuring transition from GStreamer 1.18.5.
- Worked on the **middleware software optimization** and **hardening** of dashplayer2 for the stable release of **webOS25**.
- Implemented **feature enhancements** and **resolved critical bug fixes** for dashplayer for production releases of **webOS23** and **webOS24**.
- Collaborating with cross-functional teams to achieve successful **HbbTV certification** across multiple regions, ensuring compliance with regional broadcasting standards.
- Providing **support** to **team members** in the execution of their tasks and responsibilities.
- **SoC:** Several **Realtek** (**k24n, k25lp, k8hpp** etc.), **Mediatek**(**m23** etc.) and **SIC** (**o24n**, **o22n** etc.) chipsets.

Software Engineer
Qualcomm on Wipro payroll

10/2021 - 03/2023 *Bengaluru, India*

Implementation & bug-fixes of Smart-Watch Software

- Developed system software for sensor integration in wearable devices (smartwatch) based on the **QC5100 Low Power Audio SoC.**
- Worked on the development of BLE application software in C/C++ using **FreeRTOS**, enhancing connectivity features in smartwatches to **optimize performance** and user experience.
- Designed and implemented protocol interfaces, including HFP and A2DP, utilizing Google Protocol Buffers (Protobuf) for **efficient data serialization** and **communication**.
- Fixed customer critical bugs, **improving** overall **system stability.**

Junior Embedded Design Engineer
Megamic Electronics

08/2020 - 06/2021 *Bengaluru, India*

Firmware Development of Remote Monitoring Unit

- **Developed software** for proprietary Remote Monitoring Units used in photovoltaic power plants and other **applications in Linux environment** using C, serving clients including TATA Power, SunEdison, L&T, and others.
- Worked on the integration of multiple modules, including **LCD** and **OLED** displays and **sensors**, through the implementation of various communication protocols, ensuring on-time delivery to clients.
- Implemented **interrupt-driven firmware** modules to handle sensor data and communication protocols efficiently, minimizing latency in remote monitoring systems.
- Contributed to the development of the **over-the-air** solution for the RMU product and led **field deployments**.
- **Controllers**: STM32F103xx(ARM Cortex M3), STM32F40xx(ARM Cortex M4), STM32F05xx(ARM Cortex M0) etc.

CERTIFICATES

Embedded Systems Multi-Threading Interfacing – The University of Texas at Austin (11/2020 - 01/2021)

Embedded Linux and Linux Device Drivers – Tech Veda (11/2021 - 03/2022)

EDUCATION

B.Tech - Electrical & Electronics Engineering
Dr. APJ Abdul Kalam Technical University
07/2014 - 06/2018 *75%*

Senior Secondary Education (+2)
Mary Gardiner's Convent School (C.B.S.E.)
04/2013 - 03/2014 *87.4%*

Secondary School (High School)
Mary Gardiner's Convent School (C.B.S.E.)
04/2011 - 03/2012 *9.4 CGPA*

SKILLS

C/C++ | STL | Linux System Programming | Shell Scripting | Embedded Linux | Linux Kernel and Device Drivers | ARM Processor | RTOS | Problem Solving | Git | Gerrit | Perforce | Agile Methodology | Jira | Data Structures and Algorithms | Communication Protocols: UART, I2C, SPI, HTTP | Peripheral Interfaces | Middleware | Firmware | Operating System | Tools: Logic Analyser, Oscilloscope | GDB | Debugger: JTAG, Lauterbach T32 | Gstreamer | DASH Protocol | Multimedia | Wearables

LANGUAGES

English
Full Professional Proficiency

Hindi
Native or Bilingual Proficiency