Software Embedded Engineer

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**Summary**

* **5+ years** of experience as an **RT Embedded Engineer**, skilled in developing and optimizing RT systems for **microcontrollers** and **processors**.
* Skilled in **C/C++** and **Python**, worked with **Git** and **Docker**, knowledgable of **Linux**.
* Experienced in **low-level programming**, hardware-software **integration**, and **troubleshooting**.
* Experienced in **communication protocols** and interfaces (802.15.4, **BLE**, **UART**, ADC, **I2C**) and embedded systems and hardware (**STM32**, XBEE, FIM, CAP, LDPC).
* Collaborated with the **cross-functional teams**, ensuring adherence to engineering best practices.
* Experience with **electronic lab equipment** – scope, logic analyzer, multimeters, and power supplies

**Professional experience**

2020 - 2024 **Software Embedded Engineer**, Romtes Technologies

* **Developed** and **implemented** RT-embedded software for **microprocessors**.
* Performed unit testing, **debugging**, and **troubleshooting** of embedded software.
* **Integrated** hardware and software components to ensure system functionality.
* Executed **real-time system analysis** while meeting timelines and performance requirements.
* Designed, wrote, and tested all **features** while conducting ongoing **performance reviews**.
* Served as an independent developer and wrote the main program in **C** for the **STM32** platform.
* Worked with **communication protocols** such as **UART, I2C, RF**, and **BLE**.
* Conducted **code reviews** and maintained version control using **Git.**
* Supported **system integration** and **validation** processes by addressing complex technical issues.
* Collaborated with **cross-functional teams** and provided insights to senior management.
* Designed and developed an **Android application** from scratch, incorporating **Bluetooth communication** and hardware integration, which resulted in significant revenue growth and transformed the product from a “nice-to-have” to a “must-have” as clients recognized its value.
* Developed programs in **C#** and **Python** to support internal company processes.

2018 - 2020 **RT Embedded Engineer**, Western Digital

* Developed and implemented **RT embedded multithreaded software** with a **C++** simulator and **C-based firmware.**
* Conducted unit testing, debugging, and **troubleshooting** of embedded software.
* **Integrated** hardware and software components and successfully implemented **multi-threading** system-level optimization techniques.
* Conducted **simulations** of low-level HW drivers such as **FIM, CAP, LDP, C**, etc.
* Developed documentation, participated in **code reviews,** and maintained version control using **Git.**
* Supported **system integration** and **validation** processes and performed real-time **system analysis**

**Education**

2016 - 2022 **B.Sc. in Computer Science Studies**, The Open University

**Tools & Technologies**

Programming, OS and DB: **C, C++, C#, Python, Java, Windows, Linux,** and **SQL**

Communication Protocols and Interfaces: 802.15.4, **BLE, UART,** ADC, and **I2C**

Embedded Systems and Hardware: **STM32,** XBEE, FIM, CAP, and LDPC

Development Methodologies & Tools: **Agile**, OOD, **Git**, Jenkins, **Docker**, Wireshark, and Jira

**Military Service** 2010 - 2013 Paratroops Corps, IDF