**Top Technical Skills for Embedded Systems Engineers**

* Deep experience with both hardware and software
* Processor technology, including the latest processors
* Microcontrollers, or MCUs
* C and C++
* Real-time Operating Systems (RTOS)
* Device drivers, including Linux
* Understand design patterns and embedded system design patterns
* GNU Project debugger, including both local and remote debugging
* Linux
* Communication Protocols
* Interface buses like I2C and SPI
* General-purpose input/output, or GPIOs
* MATLAB programming platform
* Assembly programming language
* Python programming language
* Open-source software
* Wireless connectivity, including Wi-Fi and Bluetooth low energy
* Unified Modeling Language

**Top Technical Skills for Embedded Software Engineers**

* C and C++ programming
* Microcontrollers, or MCUs
* Microprocessors
* Linux operating system
* Software optimizations skills at the System on a Chip (SoC) level
* Real-time Operating Systems (RTOS)
* Device drivers
* Understanding of design patterns and embedded system design patterns
* Debugging skills
* Ability to work with existing code bases
* Assembly programming language
* Basic understanding of Internet of Things (IoT) and internet-based technologies
* Understanding of data structures
* Python programming language