

Engineer - Software Development (Embedded)

(Position Code M04)

Role and Responsibilities:

As a Software Development Engineer, you will be working on latest embedded products being developed by Matrix on various platforms ranging from controllers running at few 10s of MHz to processors running at GHz. You will be working on Device drivers, Libraries, CPLDs, FPGAs, Porting, Protocols, Stacks, etc. Some of you will be working on products being developed on various Operating Systems including Windows, Linux and now on mobile OSs like Symbian 9, iOS4, Android, MeeGo, etc. Few of you will be working on the configuration interface of the product which demands knowledge of web technologies.

This position demands the aptitude to zoom-in to Nano-level to solve tough engineering problems and an ability to zoom-out to Giga level to architect software designs. The best candidate for this role will have strong analytical skills, fluency in design and coding and excellent communication skills.

Your responsibilities would mainly include.

- Designing and developing embedded software for micro-controller, microprocessor and DSP based products, desk-top applications for Computer Telephony, Soft Phones, Web-based configuration and management software, etc.
- Engaging closely with the software analysis and design team to determine the best design and efficient implementation methods within reasonable time frame.
- Working closely with the Hardware design and development team to ensure that the hardware is being developed in line with the software design and requirements.
- Working closely with the Technical Support Team to resolve field issues on priority basis.

Requirements:

- M.E./M.Tech/B.E / B Tech in Electronics / Computer Science / M Sc. in Electronics/MCA or equivalent.
- 2-3 years of Software design and development experience, preferably of telecom products.
- Strong programming skills in C, C++ or Java.
- Expertise in designing data structures, formulating algorithms and doing complex analysis for bettering the product software.
- Experience/Good Knowledge in one of the following technologies/applications:
 - HTML, XML, Java Script, CSS, Web feeds, PHP, CGI scripting, etc.
 - Linux, RTOS Application development
 - Windows Application development

- Mobile Applications on any of the Mobile OS like Android, Symbian, iOS4, RIM OS (Blackberry), etc.
- Device drivers programming on Linux/Windows
- TCP/IP, Socket programming
- GUI programming using Qt, GTK, Android, etc.
- DSP algorithms
- Experience/Knowledge in either of the following:
 - In-depth knowledge of IP protocols viz. TCP/IP, RTP, RTCP, FTP, Telnet, DHCP, DNS, RSVP, SMTP, POP3, IMAP, SNMP, HTTP, etc.
 - Knowledge of various telecom protocols viz. BRI, PRI, E1-CAS, T1-RBS, SS7, etc.
 - Knowledge of various protocols for sending Voice over IP viz. SIP, SDP, RTP, RTCP, H.323, MGCP, IMS, etc.
 - Understanding of Wireless technologies like GSM, UMTS, Wi-Max, LTE, GPS, Wi-Fi, DECT, Bluetooth, etc.
 - Experience in integrating/working with various components of a distributed next-generation IP based architecture including Softswitches, Gateways, SIP Proxies, Redirect servers, Routers, Switches, Media Servers, SIP Phones, IADs etc.
 - Knowledge of CTI protocols viz. TAPI, JTAPI, CSTA, etc.
 - Good Knowledge of Hardware devices like Micro-Controller, Micro-Processor, DSPs, Memories and other peripherals.
 - Good Knowledge of Embedded software design and development principles and practices.
 - Knowledge of IP networking, network analysis, performance and application issues using standard tools like tcpdump
- Ability to collaborate with other teams
- Excellent analytical skills.
- Excellent documentation capabilities.
- Ability to mentor junior team member, sponsor and model exemplary team interaction, use judgment to solve problems where protocol might not exist, apply high degree of ingenuity using broad parameters for foundation of decisions and makes product level decisions independently
- Knowledge of IP networking, network analysis, performance and application issues using standard tools like Wireshark, etc.

Freshers with all the above qualities can also apply.

This position is based @ R&D Center, Vadodara.