
Mechatronics Engineer Intern – Job Req R1926

Quadrus Medical Technologies, Inc. is a health tech startup. We aim to revolutionize critical care medicine with technologies rooted in advanced engineering. We specialize in artificial intelligence and physiology-based solutions for cardiovascular, respiratory, and renal systems. We strive to bring personalized diagnostic and therapeutic information to the care team when and where it is needed most.

What you will be responsible for:

- Develop, test, and maintain medical device data acquisition (DAQ) software
- Redesign and optimize hardware-software interfaces of products
- Read communication protocols of medical devices and write software interfaces
- Read protocols for sensors, valves, buttons, LEDs, etc. and write software interfaces
- Setup and configure OS, virtual machines, test environments, etc.
- Design electrical schematics and build protoboards for products
- Write code to securely transfer data over LAN, WLAN, Wifi, or Bluetooth
- Contribute to technical documentation for product software
- Participate in research and development through presentations, publications and meetings

What we expect you to bring to the table:

- Proficiency in programming (C/C++, C#)
- Proficiency in programming (Python, Tkinter, Qt, GTK, VTK, Cairo, etc.)
- Proficiency with serial communication (I2C, RS232/UART, SPI, etc.)
- Experience in circuitry, electronics, sensors, actuators, etc.
- Knowledge of cloud architecture, networking, and security (AWS, IOT, etc.)
- Knowledge of network protocols OSI, TCP/IP (HTTPS, SFTP, SSH, UDP, etc.)

What we consider to be a plus:

- Familiarity with SSL and TLS protocols; Binary and hexadecimal numbers
- Knowledge of Arduino and Raspberry Pi
- Experience with encryption, hashing, binary, and hexadecimal numbers
- Familiarity with embedded systems, shell scripting, UNIX-based systems, ARM Linux
- Knowledge of virtualization and containerization (Docker, Kubernetes, etc.)
- Experience with PCB design (gerber files, etc.)
- Experience in version control and testing (Git, unit, integration, system, regression, etc.)

Preferred background: MS in Electrical Engineering, Mechanical Engineering, Computer Engineering, Systems Engineering, or similar field.

Position Details: 3-4 months. Potential to hire.

Note: This position is on-site at our office location. Please only apply if you would be able to fulfill this requirement.

Quadrus Medical Technologies, Inc. is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law. If you have a disability and require a reasonable accommodation to assist you in completing your application, please contact QMT at info@quadrusmedical.com and (929)343-5400. Please mention job requisition R1926 when applying.
