

Software Engineer

Department: Engineering
Reports To: Engineering Manager

Summary

Tucker-Davis Technologies (TDT) designs, manufactures and sells highly innovative instrumentation to the neuroscience research market. TDT products are utilized in exciting experiments in university, government and private labs all around the world. TDT specializes in electrophysiology and complex signal processing across a wide range of neuroscience applications.

TDT software engineers design, develop and maintain computer applications that enable the use of TDT hardware. Software applications include experimental management, data collection, signal processing and data visualization. TDT applications are primarily written in Windows C++ but often other languages are incorporated. Successful candidates will be capable of tackling complex software problems and be able to design, implement and complete projects with minimal supervision.

Essential Duties & Responsibilities

Detailed below are duties and responsibilities of position, other duties may be assigned.

- Formulate, design and implement software systems and programs, using a combination of experience and a detailed understanding of the task requirements.
- Consult with engineering and other staff to evaluate software design requirements, as well as operational and performance requirements of overall system.
- Systematically test and debug software programs.
- Investigate reported software anomalies and modify, test and correct existing programs.
- Assist in the development of technical materials for software manuals and other documentation.
- Assist technical support department to resolve product related problems such as inoperative hardware or software.

Qualifications

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

- Strong skills in Windows C++ programming and debugging required.
- Experience with Qt application framework, SQL and Python scripting preferred.
- Previous work with embedded hardware systems preferred.
- Must be highly organized, detail-oriented and self-motivated.



Education and/or Experience

Bachelor's or Master's degree in Computer Science, Biomedical Engineering, Neuroscience or related field or equivalent experience.

Language Skills

Excellent verbal and written communication skills with strong technical writing skills. Ability to read, analyze, and interpret software code as well as common scientific and technical journals. Ability to effectively present information to management and other departments.

Mathematical Skills

Ability to apply advanced mathematical concepts such as exponents, logarithms, quadratic equations, and permutations. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory, and factor analysis.

Reasoning Ability

Excellent problem solving skills required. Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

Certificates, Licenses, Registrations

Valid Driver's license.

Work Environment

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. TDT is a nonsmoking environment.