



Software Engineer III

Department: Engineering

Reports To: Engineering Manager

Summary

Tucker-Davis Technologies (TDT) designs, manufactures and sells highly innovative research equipment to scientists around the world who study the brain. TDT products are utilized in exciting experiments in university, government and private labs to make new neuroscience discoveries and develop treatments for neurological disorders.

TDT software engineers design, develop and maintain desktop computer applications that facilitate the use of TDT hardware. Our software applications include experimental design/control, data collection, signal processing and data visualization. Our extensive code base is written in C++ for Windows with a heavy reliance on the Qt application framework. Successful candidates will be capable of tackling complex software problems and be able to design, implement and complete projects with minimal supervision.

We are a small, fast-paced company with 35 years of stability and loyal customers behind us. TDT offers an exciting opportunity for engineers to work on fast-moving software and embedded hardware projects across a wide range of cutting edge scientific applications.

Essential Duties & Responsibilities

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

- Rapidly design and implement software systems / programs for new TDT products.
- Maintain existing TDT software applications by investigating reported software anomalies, modifying code when needed, and systematically testing and debugging.
- Consult with engineering and other staff to establish software design, operational and/or performance requirements.
- Maintain all software and processes used in the building, packaging, and release of TDT software
- Assist technical support department in the resolution of product related problems such as inoperative hardware or software.
- Assist the technical support department in the development of technical materials for software manuals and other documentation.

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 (Visual Studio) required.
- Experience with the Qt application framework, SQL and Python scripting preferred.
- Experience with software version control (e.g. SVN, Git, etc.) preferred.
- Previous work with embedded hardware systems and signal processing optional.
- 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. A minimum of 5 years of software engineering experience is required.

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 are 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.