

**Job Title:** Software Engineer/Senior Software Engineer

**Department:** Engineering

**Job Relationships:**

Reports to: Software Engineering Supervisor, Engineering

Supervises: None

**Position Summary:**

Responsible for generating and completely documenting software for Prentke Romich's communication products and support software. Designs software products and changes to existing products to meet market requirements. Works in a team environment and provides support for other members of the software team, other engineering projects, and other departments as required. Assists in creating products that meets or exceeds customer and regulatory requirements. Must have comprehensive knowledge of software design and programming including object oriented design and MVC. Comprehensive experience with either Python or C++ and software development tools is required for this position.

**Specific Duties and Responsibilities:**

1. Work with Product Managers to obtain product definitions for new products. Supplies technical feedback to evaluate the feasibility of the product definitions. Helps assure that the product definitions include complete descriptions necessary for product design.
2. Convert ideas and concepts for new products into functional products by designing software for systems on dedicated hardware or on personal computer platforms.
3. Create and document engineered solutions to implement approved functional specifications.
4. Work with a team of engineers to implement new products and revisions to existing products.
5. Create software which substantially follows the coding guidelines and standards adopted by the team. Write code that is clear, annotated, documented, and follows guidelines to ensure that it can be used and/or maintained by other engineers.
6. Where applicable, create testing environments for software components, subsystems, systems, or products to ensure compliance with functional specifications and other requirements.
7. Maintain documentation to ensure that it accurately reflects the software designs as implemented.
8. Assist in testing product solutions and in implementing changes as required for product release.
9. Work closely with hardware engineers and provide input to help optimize the overall product design.
10. Create software to test and troubleshoot hardware products for use in manufacturing and service support.
11. Document and maintain software in accordance with Engineering policies and such that it can be understood and altered by any competent engineer. Maintain documentation, versions and revisions of software as needed to meet requirements.
12. Assist in training other staff when required. Act as a technical resource for other engineers,

- service staff, and other departments as required.
13. Provide the necessary technical information defining the operation and function of the design to the Hardware/Software Test Engineer, allowing the development of test procedures.
  14. Support the development of printed and electronic documentation.
  15. Release completed designs to production through standard Engineering procedures.
  16. Attend department and applicable specific product meetings to obtain and communicate relevant information.
  17. Strive to expand knowledge of recent developments and directions in the microprocessor and software field, as well as the aspects of the AAC field in general, particularly how these issues affect the users of the products being designed.
  18. Provide technical assistance to the service and manufacturing departments as required.
  19. Develop support tools necessary to simplify product manufacturing, service support, international development/translations and icon maintenance.
  20. Other duties and responsibilities as assigned.

Senior Level Duties and Responsibilities (only applies to Senior Software Engineer position):

21. May be responsible for leading a team of engineers in a product development or significant product revision project.
22. May serve as a mentor for other members of the department or other resources applied to engineering projects, this may include the technical (non-administrative) supervision of another engineer's work.
23. Review software strategy with Engineering Management and other engineers to assure that the final products are safe for the end user, follow good engineering practices (software must be able to be maintained and modified if necessary), perform the required functions, and can be efficiently and effectively maintained as products.
24. Assist Engineering Management in the operation of the department, including the coordination of resources and assets, budgeting and scheduling, process and work system management, and other administrative responsibilities.

Skillful Communications:

Frequent contact with Product Managers and other engineering staff. Requires resourcefulness, tact, negotiating/problem solving abilities.

Education and Experience:

1. Minimum B.S. in computer science or computer or software engineering, or equivalent education and experience.
2. Preferred to have at least three years' experience in Python or C++ for PC applications and/or embedded systems in product development. Appropriate internship, co-op, or similar work experience may be acceptable. Senior level position should be at least six years' experience.
3. Experience with software and product systems design.
4. Desire experience with graphical user interfaces.
5. Prefer experience in Windows environment.
6. Prefer experience with SQL databases.

7. Experience with HTML5, Node, Angular, and/or React is a plus.
8. Experience with Python frameworks such as Django or Flask is desirable.

**Knowledge, Skills, and Abilities:**

1. Must be able to work independently with little supervision.
2. Must be able to work well with a team.
3. Must have sound decision-making and problem-solving abilities.
4. Must have enthusiasm for engineering in the field PRC serves.
5. Good understanding of a wide variety of digital and peripheral circuitry

**Physical and Environmental Requirements:**

- Fingering. Picking, pinching, typing or otherwise working, primarily with fingers rather than with the whole hand as in handling.
- Grasping. Applying pressure to an object with the fingers and palm.
- Feeling. Perceiving attributes of objects, such as size, shape, temperature or texture by touching with skin, particularly that of fingertips.
- Talking. Expressing or exchanging ideas by means of spoken word. Those activities in which they must convey detailed or important spoken instructions to other workers accurately, loudly, or quickly.
- Hearing. Perceiving the nature of sounds at normal speaking levels with or without correction. Ability to receive detailed information through oral communication, and to make the discriminations in sound.
- Repetitive Motion. Substantial movements (motions) of the wrists, hands, and/or fingers.
- Sedentary Work. Exerting up to 10 pounds of force occasionally and/or negligible amount of force frequently or constantly to lift, carry, push, pull or otherwise move objects, including the human body. Sedentary work involves sitting most of the time. Jobs are sedentary if walking and standing are required only occasionally and all other sedentary criteria are met.
- The worker is required to have close visual acuity to perform an activity such as: preparing and analyzing data and figures; transcribing; viewing a computer terminal; extensive reading; visual inspection involving small defects, small parts, and/or operation of machines (including inspection); using measurement devices; and/or assembly or fabrication parts at distances close to the eyes.
- The worker is not substantially exposed to adverse environmental conditions.