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# Example of Software Principal Engineer Job Description

Our innovative and growing company is looking for a software principal engineer. Please review the list of responsibilities and qualifications. While this is our ideal list, we will consider candidates that do not necessarily have all of the qualifications, but have sufficient experience and talent.

## Responsibilities for software principal engineer

* Perform and/or provide guidance and oversight on vulnerability assessments
* Collaborating with program and engineering disciplines and ensuring cybersecurity solution alternatives
* Conducting technical and nontechnical trade studies, analysis, reviews identify
* Provide hands on technical leadership in the full lifecycle of design and implementation of software system for embedded devices and systems, from requirements through production and commercial launch, and maintenance
* Collaborate with a multidisciplinary engineering team to solve complex system problems
* Perform feasibility investigation for new projects, systems, or approaches
* Perform risk management activities including Fault Tree Analysis (FTA), Operator Misuse Analysis (OMA), and Failure Mode and Effects Analysis (FMEA) to identify design and process shortcomings, and methods for effective mitigations
* Support Software Quality Assurance to meet the requirements of our internal Quality System, including specific requirements of GMPs, FDA QSR, IEC 62304, and ISO 9001 standards
* Drive process and standards improvement efforts, provide mentoring to other software engineers, and lead the development team in the adoption of best practices and design methodologies
* Support complex automated and semiautomated

## Qualifications for software principal engineer

* 10+ years of broad experience developing software products using Java technologies
* Responsible for defining software architecture for the client engineering team
* Define the technical implementation of the software architecture
* Facility for connecting UI apps with backend systems, making them sing
* Strong knowledge of Java, JavaScript, DHTML, CSS and Web technologies
* Experience with information technology data standards including XML, XML Schema