

## SOFTWARE ARCHITECT I

DISTINGUISHING FEATURES OF THE CLASS: Under supervision, incumbents of this class, located in the Department of Information Technology and the Office of the District Attorney, are responsible for participating as part of a team in the design, development, building, configuration, integration, testing and operation of custom programming projects and systems, including in-house and third party software components, in order to provide quality technology services. Incumbents perform the aforementioned duties at any point in the life-cycle for existing and new systems. Supervision is not a responsibility of this position. Guidance may be provided to Interns and student workers. Does related work as required.

### EXAMPLES OF WORK: (Illustrative Only)

Prepares project plans, designs software module architecture, documents and presents the design and code to acquaint other staff with the details of the system and undertakes any other necessary and related tasks to a successful and timely conclusion at any point in the life-cycle of an application system to build effective application systems;

Participates in the collection and organization of functional requirements, analyzes those requirements and develops a conceptual (logical) representation of the requirements;

Assists in preparing requests for proposals (RFP's) for vendor software, software tools and components; works with vendors with a view towards effective use of their systems and/or software modules;

Designs and develops web-based applications using .NET, HTML, Java and SQL, or other tools appropriate to the application;

Uses systems configuration management and version control tools in the various life-cycle stages of a system;

Designs database schemas to meet the data needs of the departments, as identified in requirements analysis or county-wide mandates;

Designs, develops and administers systems based upon relational database management software such as Oracle and Microsoft SQL Server, or upon object-oriented database software;

Uses computer applications or other automated systems such as spreadsheets, word processing, calendar, e-mail and database software in performing work assignments;

May access protected health information (PHI) in accordance with departmental assignments and guidelines defining levels of access (i.e. incidental vs. extensive);

May perform other incidental tasks, as required.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES:

Thorough knowledge of the fundamental concepts of server and client operating systems, including either UNIX/Linux or Microsoft Windows; knowledge of designing and programming for software; knowledge of SQL, .Net, PL/SQL, PHP or Java; knowledge of formal requirements, analysis and design methodologies and CASE tools; knowledge of the design, programming and architecture of effective, maintainable solutions at the module level; knowledge of how to use and select software components/objects as appropriate; familiarity with at least one of the following: GIS, object-oriented database management systems, middleware, embedded systems or expert systems; ability to use Rapid Application Development tools; ability to identify, evaluate and convey (both orally and in writing) requirements, designs and operations of application software and systems; ability to gather and analyze data and draw conclusions; ability to establish and maintain effective working relationships; ability to effectively use computer applications such as spreadsheets, word-processing, e-mail and database software; ability to read, write, speak, understand, and communicate sufficiently in English to perform the duties of the position; thoroughness and attention to detail; resourcefulness; initiative; imagination; good judgment; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: A Bachelor's Degree\* and four (4) years of recent (within the last 6 years) experience (pre- or post-degree) where a primary function of the position was designing and programming application software in Java, .Net, SQL, PL/SQL, or PHP; the administration of Oracle or MS SQL server databases; or full life-cycle project management of information technology focused projects.

SUBSTITUTIONS: A Bachelor's degree\* in Information Technology or closely related field may be substituted for one year of the required experience. A Master's Degree\* in Information Technology or a closely related field may also be substituted for one additional year of experience.

SPECIAL REQUIREMENTS: Possession of a valid license to operate a motor vehicle in the State of New York at time of appointment and maintain same while in the title.

NOTES:

1. \*Education beyond the secondary level must be from an institution recognized or accredited by the Board of Regents of the New York State Department of Education as a post-secondary, degree-granting institution.
2. Unless otherwise noted, only experience gained after attaining the minimum education level indicated in the minimum qualifications will be considered in evaluating experience.
3. Experience on a home personal computer may not be used as a substitute for the aforementioned experience.