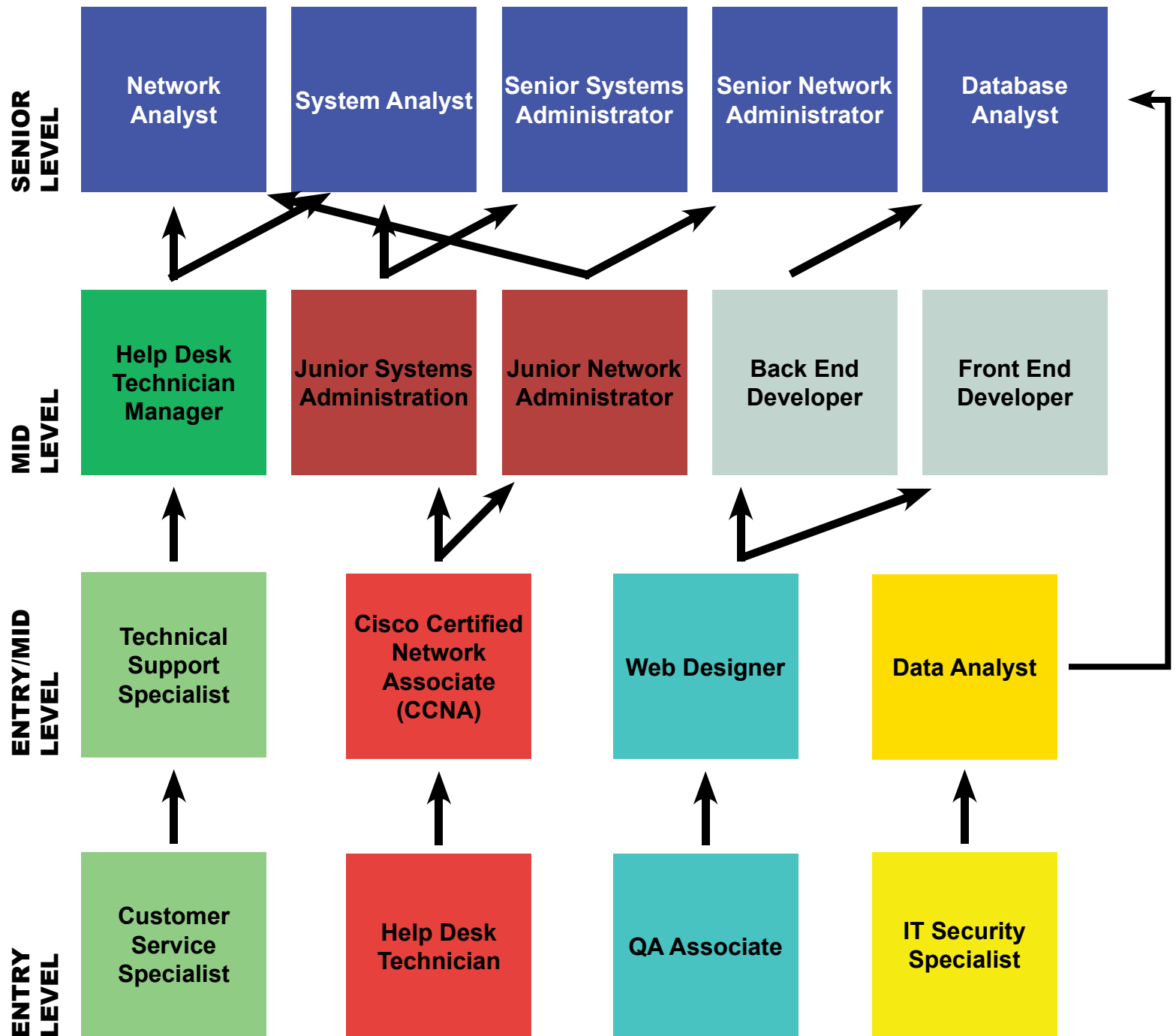


Sample Career Ladder/Lattice for Information Technology



CUSTOMER SUPPORT SPECIALIST

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry

JOB DESCRIPTION

Customer support specialists provide service or product information, solutions and relevant details to customers. They are sociable individuals with a knack for providing professional and clear answers to customer's requests.

EDUCATION

Associate's degree and knowledge of technology.

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

30% growth between 2014 and 2024.

WORKFORCE PREPARATION

Candidates need to be personable and appear capable of learning. Associates degree is the minimum requirement.

WORK EXPERIENCE

Entry level.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$25K+ per year

TECHNICAL SUPPORT SPECIALIST

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry

JOB DESCRIPTION

Technical support specialists provide technical support, advice, and assistance to consumers and businesses with technical, hardware, and software system problems. Specialists generally deal directly with end users and must effectively communicate answers in a way they can understand.

EDUCATION

5+ years relevant experience OR Bachelors degree in related field

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

30% growth between 2014 and 2024.

WORKFORCE PREPARATION

3-5 Years experience in Customer Support and/or relevant Degree

WORK EXPERIENCE

3-5 Years experience in Customer Service if one does not have a Bachelors.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$35-60K
\$15-30/hr

WEB DESIGNER

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry

JOB DESCRIPTION

A web designer creates the look, layout, and features of a website. The job involves understanding both graphic design and computer programming. Once a website is created, a designer helps with maintenance and additions to the website. They work with development teams or managers for keeping the site up-to-date and prioritizing needs, among other tasks.

A web designer's job duties cover all aspects of creating a website. Upon meeting with clients and assessing their needs, web designers help create and maintain the product. Their duties include, but aren't limited to, the following:

- Writing and editing content
- Designing webpage layout
- Determining technical requirements
- Updating websites
- Creating back up files
- Solving code problems

EDUCATION

Minimum Associates Degree required

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

20% growth between 2014 and 2024.

WORKFORCE PREPARATION

Entry level jobs start after graduation. However mid-level jobs require AT LEAST 2-3 years work experience and creative competency.

WORK EXPERIENCE

0-3 Years

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$30-\$50K

DATA ANALYST

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry - Mid

JOB DESCRIPTION

Technical support specialists provide technical support, advice, and assistance to consumers and businesses with technical, hardware, and software system problems. Specialists generally deal directly with end users and must effectively communicate answers in a way they can understand.

EDUCATION

5+ years relevant experience OR Minimum Bachelors degree in related field.

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

10% growth between 2014 and 2024.

WORKFORCE PREPARATION

3-5 Years experience in Customer Support and/or relevant Degree

WORK EXPERIENCE

Entry-Mid requires 0-5 years

Senior Level Analyst requires AT LEAST 3 years plus a masters

LICENSURE/CERTIFICATION

CAP

SALARY IN REGION

\$60K+

QA ASSOCIATE

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry

JOB DESCRIPTION

An Associate Software Quality Assurance Engineer are QA engineers who assists the work with the senior software developers and quality engineers to monitor the process and procedures in product development and design to ensure quality and integrity of the applications they will support and assist the activities of the QA engineers to do compatibility tests for software programs, hardware, operating systems and network environments to check they comply by the standards.

EDUCATION

Bachelor's is preferred for entry level or relevant 1-2 years work experience in a software environment along with an Associate's Degree.

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

N/A

WORKFORCE PREPARATION

Candidates need to follow instruction and report on failed quality tests.

WORK EXPERIENCE

Entry level.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$30K+ per year

IT SECURITY SPECIALIST

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry

JOB DESCRIPTION

Analyze and establish security requirements for your systems/networks
Defend systems against unauthorized access, modification and/or destruction
Configure and support security tools such as firewalls, anti-virus software, patch management systems, etc.
Define access privileges, control structures and resources
Perform vulnerability testing, risk analyses and security assessments
Identify abnormalities and report violations
Oversee and monitor routine security administration
Develop and update business continuity and disaster recovery protocols
Train fellow employees in security awareness, protocols and procedures
Design and conduct security audits to ensure operational security
Respond immediately to security incidents and provide post-incident analysis
Research and recommend security upgrades
Provide technical advice to colleagues

EDUCATION

Associate's Degree and relevant certification

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

N/A

LICENSURE/CERTIFICATION

MCP: Microsoft Certified Professional
MCSE: Microsoft Certified Solutions Expert
MCSD: Microsoft Certified solutions Developer
CISSP: Certified Information Systems Security Professional.
CISM: Certified Information Security Manager.
CompTIA Security+
CEH: Certified Ethical Hacker.
GSEC: SANS GIAC Security Essentials.

WORKFORCE PREPARATION

Depending on the field of specialty coursework and certification would need to be relevant.

WORK EXPERIENCE

Associate's degree and certification(s)

SALARY IN REGION

\$25K+ per year

CISCO CERTIFIED NETWORK ASSOCIATE (CCNA)

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry

JOB DESCRIPTION

CCNAs usually perform the job duties of a network technician or network administrator. As a CCNA, you may install, configure and maintain networking equipment, such as routers and switches. This can involve setting up network hardware and typing commands into Cisco IOS software, which is used to configure network devices. Network security responsibilities are also common and include setting up access control lists for firewalls and monitoring intrusion detection systems for potential security breaches.

EDUCATION

Associate's Degree and relevant certification (CCNA)

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

N/A

WORKFORCE PREPARATION

Bachelor's degrees are preferred but work experience and relevant certifications can negate that requirement.

WORK EXPERIENCE

If one doesn't have a Bachelor's degree then ideally 1-2 years relevant work experience is preferred along with certification(s).

LICENSURE/CERTIFICATION

CCENT and CCNA

SALARY IN REGION

\$40K+ per year

HELP DESK TECHNICIAN

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry

JOB DESCRIPTION

Help desk technicians are vital to the IT workforce, as they keep the technologies that organizations rely on to do business up-to-date and running smoothly.

IT help desk technicians provide technical support and troubleshooting services to end-users who need assistance with their computer hardware or software. There are two chief types of help desk technician: In-house and Remote. Remote help desk technicians support technology customers via phone, online and occasionally on-site. In-house technicians only provide support for internal employees.

EDUCATION

Associate's degree or technical diploma suggested for all but the lowest-level positions

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

30% growth between 2014 and 2024.

WORKFORCE PREPARATION

None Needed

WORK EXPERIENCE

Entry level.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$25K+ per year

JUNIOR SYSTEMS ADMINISTRATOR

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry - Mid

JOB DESCRIPTION

Junior systems administrators are responsible for handling day-to-day information technology (IT) operations for their organization. They are in charge of assisting system administrators with providing systems support for end users. Junior systems administrators complete support tasks for hardware devices and software packages, help with installation setups, and revise existing documentation guidelines. Other main functions include providing training for teams in other departments, answering technology questions as needed, completing administrative tasks when required, and filling out documentation when requesting new inventory.

EDUCATION

-Bachelor's Degree in Computer Science or Related Field

OR

-Associates Degree and certifications Cisco and Microsoft certifications

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

30% growth between 2014 and 2024.

WORKFORCE PREPARATION

Candidates need to be personable and appear capable of learning. Associates degree is the minimum requirement.

WORK EXPERIENCE

Entry level positions rarely require experience, however for Mid-Level positions at least 2 years is required.

LICENSURE/CERTIFICATION

MTA, MCSA, CCENT, Unix Server certification

SALARY IN REGION

\$40K - \$70K per year

JUNIOR NETWORK ADMINISTRATOR

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry

JOB DESCRIPTION

A network admin's job can be wide or narrow depending on the organization and how complex its networks are. But in general, a network admin is responsible for the following tasks:

Installing network and computer systems

Maintaining, repairing and upgrading network and computer systems

Diagnosing and fixing problems or potential problems with the network and its hardware, software and systems

Monitoring network and systems to improve performance

EDUCATION

-Bachelor's Degree in Computer Science or Related Field

OR

-Associates Degree and certifications Cisco and Microsoft certifications

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

30% growth between 2014 and 2024.

WORKFORCE PREPARATION

Either a Bachelor's degree or Associates degree along with relevant certifications and at least 1-2 years relevant experience.

WORK EXPERIENCE

Entry level positions rarely require experience, however for Mid-Level positions at least 2 years is required.

LICENSURE/CERTIFICATION

MTA, MCSA, CCENT

SALARY IN REGION

\$35K - \$65K per year

BACK END DEVELOPER

[BACK TO CAREER LADDER](#)

JOB LEVEL

Entry - Mid

JOB DESCRIPTION

A back-end web developer is responsible for server-side web application logic and integration of the work front-end web developers do. Back-end developers usually write web services and APIs used by front-end developers and mobile application developers.

EDUCATION

Usually requires a Bachelors in Computer Science, however an Associates and/or proficiency in development will suffice.

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

20% growth between 2014 and 2024.

WORKFORCE PREPARATION

At minimum a relevant degree is required, however coding proficiency trumps formal education.

WORK EXPERIENCE

The right degree removes the requirement for any work experience to get started. However, lacking a Bachelors will require at least 2 years work experience along with a relevant Associates Degree OR demonstrated proficiency in development.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$45K - \$70K per year

FRONT END DEVELOPER

[BACK TO CAREER LADDER](#)

JOB LEVEL

Mid

JOB DESCRIPTION

A front-end web developer is probably what most people think of as a “web developer”. A front-end web developer is responsible for implementing visual elements that users see and interact with in a web application. They are usually supported by back-end web developers, who are responsible for server-side application logic and integration of the work front-end developers do.

EDUCATION

At least an Associates Degree, however a Bachelors is preferred

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

20% growth between 2014 and 2024.

WORK EXPERIENCE

With the right bachelors degree no experience is necessary. Otherwise a portfolio of work and a least 2-3 years experience is necessary along with an Associates.

Needs to be proficient to expert in

Javascript, and at least one library
HMTL/CSS
API integration
Mobile deveopment

WORKFORCE PREPARATION

Entry Level Web Designers would typically advance to a Front End Developer within 1-5 years hands-on work.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$60K - \$80K per year

DATABASE ANALYST

[BACK TO CAREER LADDER](#)

JOB LEVEL

Mid

JOB DESCRIPTION

Database Analysts organize and make sense of collections of information in order to create functional database systems. They evaluate, design, review, and implement databases. They are also hired to maintain and update existing databases to better serve the needs of businesses. Database Analysts may also play a role in the security of databases and assist in training employees on the proper use of databases.

EDUCATION

Relevant work experience and/or relevant Bachelor's degree

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

10% growth between 2014 and 2024.

WORKFORCE PREPARATION

Knowledge of programming languages such as SQL, Javascript, CSS, HTML, and PHP
Advanced computing skills
Experience in creating database queries
Data modeling experience

WORK EXPERIENCE

Ideally 3-5 years experience working in a data heavy environment is preferred with high tech aptitude.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$50K - \$70K per year

HELP DESK TECHNICIAN MANAGER

[BACK TO CAREER LADDER](#)

JOB LEVEL

Mid - Supervisory

JOB DESCRIPTION

Help Desk Managers ensure delivery of quality technical support for clients, as well as oversee the work of Help Desk staff. These clients are often internal peers who work for the same company, but they can also be external companies who have outsourced their technical support needs.

The role of Help Desk Manager is a supervisory position within the IT field. Most employers prefer a Bachelor's degree in Computer Science or Network Administration, as well as some experience working as a Help Desk Support Specialist. Help Desk Managers must be able to use both hard and soft skills to do their jobs effectively. They use technical knowledge to diagnose and address issues with networks, hardware and software. They also use soft skills like verbal communication, leadership and conflict management to effectively manage their team of employees. According to the Bureau of Labor Statistics, demand for Computer Support Specialists, which includes Help Desk Managers, is set to rise 12 percent through 2024.

EDUCATION

Bachelor's Degree

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

10% growth between 2014 and 2024.

WORKFORCE PREPARATION

3-5 Years experience as a help desk technician and soft skills to deal with clients and escalated issues.

WORK EXPERIENCE

3-5 years help desk experience.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$50K+ per year

NETWORK ANALYST

[BACK TO CAREER LADDER](#)

JOB LEVEL

Mid-Senior

JOB DESCRIPTION

As a network analyst, you'll be responsible for the installation, layout, and maintenance of all network components within a company.

Many network analysts find that they become quite involved in both the business side and technical side of a company. This means it can be necessary to identify problems within the business and then identify a suitable technical solution.

You'll be required to plan, design, analyse, and provide technical support for data communications network or group of networks in the company. Work can also include research and evaluation of network technology and recommending purchases of network equipment.

EDUCATION

Bachelor's Degree in Computer Science and/or Business Information.
Masters Degree may also be required.

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

20% growth between 2014 and 2024.

WORKFORCE PREPARATION

- Up-to-date knowledge of hardware, software and programming – particularly relating to that used by the company
- The ability to simplify and explain technical information to others
- An understanding of business
- Team working and team management experience
- Good project management skills
- Good organisation and problem-solving skills
- To be methodical and analytical
- A level of programming knowledge (e.g. SQL, Visual Basic, C++, Java, Unified Modelling Language or SAP)

LICENSURE/CERTIFICATION

NA

WORK EXPERIENCE

Usually require relevant work experience of about 3-5 years in a networking capacity.

SALARY IN REGION

\$70K+ per year

SYSTEM ANALYST

[BACK TO CAREER LADDER](#)

JOB LEVEL

Mid-Senior

JOB DESCRIPTION

Computer systems analysts study an organization's current computer systems and procedures and design information systems solutions to help the organization operate more efficiently and effectively. They bring business and information technology (IT) together by understanding the needs and limitations of both.

EDUCATION

Bachelor's Degree in Computer Science and/or Business Information.
Masters Degree may also be required.

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

10% growth between 2014 and 2024.

WORKFORCE PREPARATION

- Consult with managers to determine the role of the IT system in an organization
- Research emerging technologies to decide if installing them can increase the organization's efficiency and effectiveness
- Prepare an analysis of costs and benefits so that management can decide if information systems and computing infrastructure upgrades are financially worthwhile
- Devise ways to add new functionality to existing computer systems
- Design and develop new systems by choosing and configuring hardware and software
- Oversee the installation and configuration of new systems to customize them for the organization
- Conduct testing to ensure that the systems work as expected
- Train the system's end users and write instruction manuals

LICENSURE/CERTIFICATION

NA

WORK EXPERIENCE

Business background with relevant degrees in computer science.

SALARY IN REGION

\$70K+ per year

SENIOR SYSTEMS ADMINISTRATOR

[BACK TO CAREER LADDER](#)

JOB LEVEL

Senior

JOB DESCRIPTION

Customer support specialists provide service or product information, solutions and relevant details to customers. They are sociable individuals with a knack for providing professional and clear answers to customer's requests.

EDUCATION

Usually requires at least a Masters Degree

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

10% growth between 2014 and 2024.

WORKFORCE PREPARATION

5-7 Years experience along with relevant degree(s) and certifications.

WORK EXPERIENCE

At least 3 years experience but most times 7+ required.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$90K+ per year

SENIOR NETWORK ADMINISTRATOR

[BACK TO CAREER LADDER](#)

JOB LEVEL

Senior

JOB DESCRIPTION

Information technology (IT) senior network administrators are responsible for providing system- and network-related solutions for their organization's information-technology assets. They oversee the functioning of networking equipment and follow strict maintenance standards. Their experience in the IT and networking fields is also used to develop new strategies to optimize server operation. They work with other IT team members, supervisors, and end-users to work on connectivity problems. IT senior network administrators also manage complex system requirements and create technical documentation for users.

EDUCATION

Usually requires at least a Masters Degree

EMPLOYMENT OUTLOOK IN THE CAPITAL DISTRICT

10% growth between 2014 and 2024.

WORKFORCE PREPARATION

5-7 Years experience along with relevant degree(s) and certifications.

WORK EXPERIENCE

At least 3 years experience but most times 7+ required.

LICENSURE/CERTIFICATION

NA

SALARY IN REGION

\$90K+ per year