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| **CRITERIA** | **OCCUPATION #1**  **Information Security Analyst** | **OCCUPATION #2**  **Network and Computer Systems Administrator** | **OCCUPATION #3**  **Database Administrator** |
| **List the job duties involved in this occupation** | Monitor company for security threats, future and current, conduct testing for systems, work alongside developers to create secure systems, know latest security trends, develop company practices to stay safe, deductive reasoning, sensitivity towards problems, and ability to create reports/audits to present to “higher ups”. | Understand company needs for a network, maintain that network, train users in network, configure network to servers needed within the company, solve problems related to created network, maintain all new applications of network, load network onto computers, coordinate external sources(vendors, email, newsletters, etc) with network, determine need for repair. | Work with data and the storage of data for a company: This includes testing known programs within the company, modifying databases, developing ways to protect vulnerable data, know and support user needs for data, liaison between IT and management. |
| **What are the educational and experience requirements?** | A degree in a computer science. Some preference towards Business and Statistics.  Needs previous work experience in similar field.  Certifications: Certified Information Systems Security Professional (CISSP). Any auditing/testing system used.  Must have skills in: Developing software, auditing software, OOP software, network/web monitoring software, analytical/critical thinking skills, problem solving skills, communication skills, and ability to learn from observations. | A degree or associates in a computer science.  Certifications: Microsoft and Cisco certifications are known to be needed.  Network Administrators are known to advance to this job.  Skills in: Database Systems software, OOP software, SQL database language, web platform development systems, network monitoring software, problem solving skills, creative skills to understand a network fully and how to create one, and ability to maintain the network. | Degree in a computer science. Bigger companies may want a specification in databases.  Certifications: programs used by company (could be completed upon hire).  Must have skills in: Database system software, developing software, OOP software, SQL database language, web software, analytical/critical thinking skills, problem solving skills, communication skills, and ability to learn from observations. |
| **What is the potential job outlook and salary range?** | Potential Job Outlook is incredibly faster than average at about 32%.  Low Range Salary is in $94,000 with a High Range Salary of $102,000. | Potential Job Outlook is faster than average at about a 12% increase.  Low Range Salary is in $70,000 with a High Range Salary of $88,000. | Potential Job Outlook is “faster than average” and seems to have an increase of about 12%.  Low Range Salary is in $70,000 with a High Range Salary of $96,000. |
|  | **Job Posting #1**  IT Security Network Analyst, Sr at Baptist Health | **Job Posting #2**  Network Administrator at Kentucky Trailer | **Job Posting #3**  SR. SQL DBA at Request Technology |
| **What are the specific job responsibilities in the posting?** | Participate in design of network intrusion detection/preventions and data loss prevention tools, create rules to assist in existing policies to continue security, work with other teams to ensure correct designs, proactive monitoring of networks. | Implementation/maintenance of Windows Active Directory, email systems, SQL server, VMWare, Firewalls, Switches, Backup ecosystem, plus security. Stable operation of LAN, WAN, and VPAN as well as pretty much all servers, responsible for administration, auditing, and maintenance. Develop tech strategy. | The responsibilities are managing all corporate server databases, 24X7 support for systems, maintain database servers, monitor system’s performance, correct real time issues, assist developers and general system responsibilities, and perform routine maintenance and support. |
| **What are the qualifications for this job posting?** | Qualifications: degree in computer science/mathematics, 7 years’ experience in network security experience in threat detection, DLP tools, knowledge of malware attacks and vulnerabilities, and experience in CISSP, CCNA, CCENT, or SCYBER. | Qualifications: Degree or equivalent experience, MCSA preferred certification, understanding of network services, experience in VMware, 5-7 years’ experience with Microsoft Infrastructure and operating systems, and experience in Active Directory, WINS, DNS, and DHCP. | Need Qualifications: 10 years in SQL database experience, 5 years in Performance Tuning and Optimization (PTO), 5 years in database experience, 5 years in windows and Disaster Recovery in SQL servers, and proficient in Microsoft office tools. |
| **If you do not qualify for this job posting, what could you do to qualify for it later?** | The only thing that I would truly need is the experience in similar jobs to become a Senior for this field. | I qualify for the college degree and experience in VMware for this job.  I would need a MCSA preferred certification, understanding of network services, experience in VMware, 5-7 years’ experience with Microsoft Infrastructure and operating systems, and experience in Active Directory, WINS, DNS, and DHCP. | The only thing that I qualify for in this job listing is that I am about to have a degree in a computer science of some sort.  I would need about 10 years in SQL database experience, 5 years in Performance Tuning and Optimization (PTO), 5 years in database experience, and 5 years in windows and Disaster Recovery in SQL servers. |
| **What about this career sounds appealing to you?** | This career seems very crucial to a company. I find the idea of threats and attacks to be very interesting and therefore getting to research new ways someone could hurt my company would be enjoyable for me. | I love Information Technology, and this would be a very large project to manage. Therefore, I would get a great deal of pride from the accomplishment. | I really enjoy the idea of being a liaison between the managerial side of a company and the Information Technology side. I am a great communicator and believe that my skills align well with the skills needed. |
| **How has your interest in this career changed?** | This would be my ideal job and after seeing everything that would need to be done for the job, I like it even more. The salary is quite nice and I love the creativity aspect needed to find solutions. | I am having to complete a project similar to this (except so much simpler) in one of my classes and to be honest this just does not seem like the kind of job that I would want to take on. Sure, the accomplishment would be cool but the idea of everything stresses me out. | Database Administrator would be a great job at any company. I think that it wouldn’t be my first choice. But after looking at all of the requirements I feel more confident that what I am learning in school I will actually use and that I would like what I do if I become and administrator. |

**SOURCES:**

Information Security Analyst: <https://bhs.wd1.myworkdayjobs.com/en-US/careers/job/Louisville-KY/IT-Security-Network-Analyst--Senior_R184484>

Network and Computer Systems Administrator: [https://career4.successfactors.com/career](https://career4.successfactors.com/career?career%5fns=job%5flisting&company=kentuckytr&navBarLevel=JOB%5fSEARCH&rcm%5fsite%5flocale=en%5fUS&career_job_req_id=375&selected_lang=en_US&jobAlertController_jobAlertId=&jobAlertController_jobAlertName=&_s.crb=hnR2alEUpFTARRCqJvStH5K%2f0%2fA%3d) (name changed to use less space, still works as hyperlink)

Database Administrator**:** <https://www.requesttechnology.com/job/louisville-ky-46-sr-sql-dba/>