

# How can this course help you?

## 1. What HCI-related role might you want to have in the future?

- a. I have not been able to find a career as of yet. But I am aiming for something similar to data engineering. To that extent, in terms of HCI related fields. I am interested in Information Architecture. It has a similar feel to organizing data in a way that it is easy to recall or compute.

## 2. What are the qualifications of that role? If you're not sure, check sites like Indeed.com, monster.com, etc.

Information Architecture doesn't seem to be a common job title. Therefore I have compiled similar entry level jobs from online job boards to make a generalization:

- b. Experience: Relevant work experience 3+ years in a specific field.
- c. Technical Skills: Proficient in relevant and general tools.
- d. Analytical and Problem-Solving Abilities: Strong analytical, evaluative, and problem-solving skills. Ability to analyze complex problems and develop effective solutions.
- e. Communication Skills: Good written and verbal communication skills.
- f. Ability to present ideas clearly and collaborate with team members and stakeholders.
- g. Teamwork and Collaboration: Ability to work effectively in a team-oriented, collaborative environment.
- h. Teamwork orientation and ability to motivate others.
- i. Educational Background: Bachelors or Masters degree.
- j. Soft Skills:
  - i. Strong time-management abilities.
  - ii. Attention to detail and ability to take initiative.
  - iii. Creativity and innovation.
  - iv. Additional Requirements:

Sources:

### 1. Project Administrator:

- a. 3+ years of project administration experience (preferably in an architectural, engineering, or construction organization)
- b. Phenomenal customer service and professionalism
- c. Strong time-management abilities
- d. Proficient in Microsoft Word, Excel, and Outlook
- e. Ability to use a high level of tact, diplomacy, discretion and empathy/understanding in a business environment with a diverse employee base
- f. Ability to take initiative and be proactive, constantly anticipating office needs

- g. Ability to lift up to 35 pounds

2. IT Architect:

- a. Proven experience as IT Architect or similar role.
- b. Superior analytical, evaluative, and problem-solving abilities.
- c. Extensive knowledge of IT-related functions, including server computer hardware, network design, implementation, and operation, security, telecommunications, databases, and storage systems.
- d. Demonstrates technical management and decision-making skills with a proven track record of completing tasks and/or projects on schedule.
- e. Advanced working knowledge of RedHat and Debian-based Linux server operating systems and PICK Multi-Value Databases required (specifically jBASE).
- f. Advanced working knowledge of virtual machines (Proxmox, VMWare) and network attached storage (TrueNAS) required.
- g. Advanced working knowledge of the Apache web server, network routing, and IP-based phone systems required.
- h. Advanced working knowledge of Microsoft 365 (Office365/Exchange), Infrastructure planning experience, disaster recovery.
- i. Ability to motivate in a team-oriented, collaborative environment.
- j. Ability to present ideas in a business-friendly and user-friendly language.
- k. Teamwork orientation.
- l. Git, PHP, and general programming background required.
- m. Bachelor's Degree in Information Systems, Computer Science or related technical discipline required.
- n. 10+ years experience in Information Technology.
- o. 7+ years experience managing an IT operation and staff.
- p. Additional physical requirements

3. Software Development Engineer Full-time:

- a. Programming skills: Proficiency in one or more programming languages such as JavaScript, Python or others. You should be able to write clean, efficient, and maintainable code. And experience in developing cloud-native applications using cloud services.
- b. Knowledge of cloud platforms: Familiarity with cloud platforms such as Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform (GCP), and the ability to use the platform to build, deploy, and manage applications in the cloud.
- c. Understanding of software engineering principles: Familiarity with software development methodologies such as Agile or Waterfall, and the ability to apply software engineering best practices such as design patterns, code reviews, and testing.
- d. Understanding of DevOps principles: Familiarity with DevOps principles such as continuous integration and delivery, infrastructure as code, and monitoring and logging.

- e. Understanding of microservices architecture: Familiarity with microservices architecture and the ability to design, develop, and deploy microservices-based applications in the cloud.
  - f. Security: Understanding of cloud security best practices and the ability to design and implement secure cloud solutions.
  - g. Problem-solving skills: The ability to analyze complex problems, identify the root cause, and develop effective solutions.
  - h. Communication skills: Good written and verbal communication skills to collaborate with other team members, stakeholders, and customers.
  - i. Creativity and innovation: The ability to think creatively and come up with innovative solutions to complex problems.
  - j. Attention to detail: The ability to pay attention to details and ensure that the software solutions you develop meet the requirements and quality standards.
  - k. Continuous learning: The willingness to learn and keep up-to-date with the latest software development technologies, practices, and trends.
  - l. Teamwork: The ability to work effectively in a team environment and collaborate with other team members to achieve project goals and requirements.
  - m. Experience: Experience in software development projects and working knowledge of software development tools, such as IDEs, version control systems, and testing frameworks, is a plus.
  - i.
4. SQL Engineer
- a. Detail oriented with abilities to look at raw data and find patterns. Big picture inclined (able to envision a system from start to end and encapsulate all features and flows). Good communication and presentation abilities.
  - b. Education and/or Experience
  - c. Technical Bachelor's Degree
5. Software Engineer Intern (\$12/hr):
- a. A minimum of 2 years of experience building software using C/C++ or Java
  - b. Strong knowledge in Windows software development, Linux / UNIX a plus
  - c. Desired candidate will have completed their junior year of a Bachelor's Program or is currently in pursuit of a Master's degree in Computer Science or other related field at an accredited College or University
  - d. Possess programming and software development skills
  - e. Understanding of system software engineering fundamentals
  - f. Excellent work ethic
  - g. Self-starting and ability to learn new technologies quickly
  - h. Passionate and proactive
  - i. Strong communication and problem-solving skills
  - j. Great team player
  - k. U.S. citizenship required

### 3. Which of the qualifications do you already have?

1. Experience: Including my schooling and relevant work experience, I have over 5 years of programming experience with various languages and tools.
2. Technical Skills: I am proficient in data engineering, SQL, Python, and data analysis tools like Excel and Power BI. My projects, such as the Transaction Data Pipeline and Bellabeat Case Study, demonstrate my ability to automate data processes, analyze large datasets, and create actionable insights.
3. Analytical and Problem-Solving Skills: My previous jobs have required strong analytical and problem-solving abilities, which I have utilized to reduce production errors and increase financial reporting efficiency.
4. Communication Skills: I have worked in class teams many times, meeting the requirement for strong team communication. I have demonstrated the ability to work effectively in team environments, collaborating with colleagues to achieve common goals. My roles have required teamwork and collaboration, which I have successfully navigated.
5. Educational Background: I hold a Bachelor's degree in Computer Science and am currently pursuing a Master's degree in Engineering.
6. Soft Skills: I possess strong time-management abilities, attention to detail, and a proactive approach, as demonstrated by my success in optimizing processes and reducing errors. My creativity and innovation are evident in the frameworks and solutions I have developed.
7. Certifications: I am certified in Google Data Analytics and Excel, which enhances my technical proficiency and problem-solving capabilities.

### 4. Which of the qualifications do you think this course can help you develop? Explain in at least a few sentences.

Taking a course in Human-Computer Interaction (HCI) can help me build my essential skills in user-centered design, usability testing, and interaction. This, combined with my experience in Figma and other tools, can give me an edge when presenting myself for a job. While the role of an Information Architect does not directly match with HCI, it still utilizes the thought process of how to best organize and fit data to be usable by either humans or machines.

5. How might you focus your efforts in this course toward developing those qualifications? Explain in at least a few sentences.

This class will give me another project that can be showcased on my resume. It will also add to my tools and proficiencies as well as give me more experience with HCI related skills and tools. All of which can be keywords that increase my score in an application tracking system.