PROJECT: Industry Exploration

Achieving Success in Changing Environments CST 8300

**Submission information:**

* Due Date: see your WEEKLY SCHEDULE
* Done individually
* To be submitted on Brightspace as an attachment, with a title page
* Worth 20%
* See rubric for marking scheme

**This assignment has 2 parts:**

* Part 1: Industry and career research
* Part 2: Informational interview (must be live or on zoom, NO phone calls)

SEE RUBRIC for Marking Scheme.

**Part 1: Research your career and industry**

1. Top of the page, where asked, indicate what career you are heading towards
   * You are to research 5 different organizations of your indicated career
   * See below for instructions for the 5 different organizations
   * You are highly encouraged to research companies for which you would consider working.
   * Information must be submitted in your own words. Do not copy and paste information from the company website.
   * If you cannot find the information….Call the company and speak to the manager, human resources or the owner, this is good networking practice!
   * Any unanswered questions will receive 0.
   * Do not wait until the last minute to do this!
2. You must research organizations in different geographic regions and company purposes.
3. Of the 5 organizations, you must find 2 non-typical companies **AND** you must indicate typical or non-typical for each company.
4. Of the 5 organizations, 3 are to be situated in the city where you would like to work, and 2 are to be in a different city or country

* Using your research, answer the questions below with respect to each of the 5 organizations.
* Type your answers in the boxes provided.
* Yes, you will answer questions 5x.

SEE RUBRIC for Marking Scheme.

**Name the career you are interested in pursuing: Software developer /Engineer**

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| ***Organization #1***  *Circle :*  *Typical or Non-Typical* | ***Your Response***  Typical |
| 1. Name of organization and city | Shopify, Ottawa, Canada |
| 1. **In your own words**, describe the company –what do they do? What is their purpose? | Shopify is a top e-commerce platform enabling companies to set up and run their online stores, taking care of everything from safe transactions to storefront design. Its primary goal is to streamline trade so that companies of all sizes can thrive online and offline. |
| 1. **In your own words**, Describe what you find most interesting or unique about this organization. | Shopify's revolutionary approach to commerce technologies and remote-first mentality makes it stand apart. The platform is a versatile option for a range of company models because it interfaces with social media and processes payments. |
| 1. **In your own words**, What education is needed to be hired with this company? | A bachelor’s degree in computer science and software engineering. |
| 1. **In your own words**, List a couple of skills and/or qualification is this company looking for when hiring. | ­­Strong programming skills (in languages like Python, or Java), problem-solving ability, experience with cloud technologies, and a focus on collaborative and customer-focused solutions. |
| 1. What would be the average wage or salary for your level? | The average salary for software developers at Shopify in Ottawa is approximately CAD $85,000–$100,000 per year, depending on experience. |
| 1. References | [1] |

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| ***Organization #2***  *Circle :*  *Typical or Non-Typical* | ***Your Response***  Typical |
| 1. Name of organization and city | BlackBerry QNX, Ottawa, Canada |
| 1. **In your own words**, describe the company –what do they do? What is their purpose? | BlackBerry QNX develops operating systems and middleware for embedded systems, focusing mainly on automotive and industrial sectors. The purpose is to provide secure, real-time software solutions for critical applications. |
| 1. **In your own words**, Describe what you find most interesting or unique about this organization. | As a pioneer in secure IoT systems and a leader in automotive software security, BlackBerry QNX's operating system drives many of the most cutting-edge cars on the road today. |
| 1. **In your own words**, What education is needed to be hired with this company? | A bachelor’s degree in computer science, software engineering, electrical engineering |
| 1. **In your own words**, List a couple of skills and/or qualification is this company looking for when hiring. | Knowledge of embedded systems, C/C++ programming, experience with real-time operating systems (RTOS), and a strong understanding of security protocols. |
| 1. What would be the average wage or salary for your level? | Software developers at BlackBerry QNX in Ottawa typically earn between CAD $85,000–$105,000 per year. |
| 1. References | [2] |

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| ***Organization #3***  *Circle :*  *Typical or Non-Typical* | ***Your Response***  Typical |
| 1. Name of organization and city | Kinaxis, Ottawa, Canada |
| 1. **In your own words**, describe the company –what do they do? What is their purpose? | Kinaxis helps big businesses optimize inventory, demand planning, and logistics by offering supply chain management software. Through its RapidResponse platform, it aims to increase efficiency and streamline global supply chains. |
| 1. **In your own words**, Describe what you find most interesting or unique about this organization. | Kinaxis stands out for utilizing AI and predictive analytics in their software to assist businesses in promptly adjusting to supply chain modifications, providing it a competitive advantage in its industry |
| 1. **In your own words**, What education is needed to be hired with this company? | Typically a bachelor’s degree in computer science, data science, or software engineering. |
| 1. **In your own words**, List a couple of skills and/or qualification is this company looking for when hiring. | Proficiency in Python or Java, familiarity with AI/machine learning principles, knowledge of supply chain concepts, and strong analytical skills |
| 1. What would be the average wage or salary for your level? | Software developers at Kinaxis earn between CAD $80,000–$95,000 per year. |
| 1. References | [3] |

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| ***Organization #4***  *Circle :*  *Typical or Non-Typical* | ***Your Response***  Non-Typical |
| 1. Name of organization and city | Canarie, Ottawa, Canada |
| 1. **In your own words**, describe the company –what do they do? What is their purpose? | Canarie provides the research and education communities in Canada with a fast-paced network. Its goal is to encourage Canadian researchers to collaborate and share data. |
| 1. **In your own words**, Describe what you find most interesting or unique about this organization. | Canarie's network architecture and commitment to developing Canada's digital research environment make it special. It is essential to fostering scientific research and cooperation throughout the nation |
| 1. **In your own words**, What education is needed to be hired with this company? | A bachelor’s degree in software engineering, computer science, or a related field. |
| 1. **In your own words**, List a couple of skills and/or qualification is this company looking for when hiring. | Network security knowledge, experience in data management and distributed computing, and familiarity with cybersecurity practices. |
| 1. What would be the average wage or salary for your level? | The average salary for a software developer in a role similar to those at Canarie is around CAD $80,000 per year. |
| 1. References | [4] |

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| ***Organization #5***  *Circle :*  *Typical or Non-Typical* | ***Your Response***  Non-Typical |
| 1. Name of organization and city | Invest Ottawa, Ottawa, Canada |
| 1. **In your own words**, describe the company –what do they do? What is their purpose? | Invest Ottawa is an economic development organization that supports local business growth, startups, and innovation through incubation and acceleration programs. Its purpose is to fuel economic growth in the Ottawa region. |
| 1. **In your own words**, Describe what you find most interesting or unique about this organization. | Invest Ottawa is unique because it provides support and resources to local tech startups, helping to drive innovation and create opportunities for developers through its tech-focused programs. |
| 1. **In your own words**, What education is needed to be hired with this company? | Typically a bachelor’s degree in a tech-related field, though some project-based experience may suffice, depending on the role. |
| 1. **In your own words**, List a couple of skills and/or qualification is this company looking for when hiring. | Strong communication and teamwork skills, experience with project management or startup environments, and knowledge of new technology trends. |
| 1. What would be the average wage or salary for your level? | As a developer collaborating with startups, the average salary may range around CAD $75,000 to $90,000. |
| 1. References | [5] |

**Part 2: INFORMATIONAL INTERVIEW**

Student Name: Harpreet Singh Date of Interview: 27/10/2024

Full name of the person you interviewed: Anoop Singh Virk

Email address: anoopsvirk96@gmail.com

Organization/Company name: Nokia

Job Title: Software Developer

Address/Location where the person works: Kanata, ON, OTTAWA

Sent the thank you card. Check the box when completed. YES

.YES

Attached a copy of what you wrote in the thank you card. Check the box when completed. YES

* Please ensure all answered are typed. Please **do not** send me an audio/video tape

**MANDATORY QUESTIONS #1-15** (must ask all of these)

TO BE WRITTEN IN THE 3rd Person… as in use, he said, she indicated, they said

Start off with some small talk and maybe offer some casual information about yourself.

1. Describe a typical day, arrival to departure, and include your major job responsibilities.

Anoop said that a typical day starts at 7:00 AM sharp.

He spends the first part of his day checking and responding to emails, prioritizing tasks for the day, and reviewing any urgent matters that require immediate attention. He often collaborates with his colleagues to discuss ongoing projects or address challenges. They conduct regular team meetings to ensure everyone is on the same page. He uses tools like calendars and to-do lists to prioritize tasks and deadlines. This helps him stay organized and ensures that he meets project milestones and deadlines. He proactively addresses any unexpected challenges that may arise during the day. This involves analyzing issues, consulting with team members, and implementing solutions to keep projects on track. Overall, his daily routine is designed to maximize productivity, maintain effective communication, and ensure the successful completion of projects.

1. How did you get into this field?

The demand for skilled software professionals has surged across various sectors, resulting in a highly favorable job market for software engineers. Individuals can acquire foundational knowledge through formal education, coding boot camps, or online learning platforms. Engaging in coding challenges and competitions can further hone their skills. Additionally, developing personal projects allows for the practical application of learned abilities and serves as a means to demonstrate expertise. Establishing a professional portfolio, improving online visibility, and actively seeking relevant employment opportunities are essential steps in this career path.

1. What is the educational background required for this career or position?

Educational requirements for a computer programmer position can vary, but most computer programmers have a bachelor’s degree in computer science, information technology, or computer engineering. Some students go on to pursue a master’s degree in computer science.

1. What personal qualities, or attributes, are important to be successful in this job/career?

programmers score highly on social responsibility, indicating that they desire fair outcomes and have a general concern for others. They also tend to be high on the measure of openness, which means they are usually curious, imaginative, and value variety.

1. What courses and skills are important for me to take, or develop while I am in school, that will be important in this field?

Take courses in languages like Python, Java, and C++. Understanding software engineering principles, such as data structures. Soft skills like Teamwork, communication, and problem-solving are key skills in tech fields where collaboration on projects and troubleshooting are constant which is very important.

1. What do you like most about this job (or this type of work)?

Problem-Solving and Creativity as it allow you to tackle complex problems and use creativity to find efficient, innovative solutions, which is very satisfying. Flexibility and Remote Work, Collaboration and Teamwork

1. Tell me about one project you enjoyed working on in your job.

Enjoyed creating a web application or mobile app from scratch. For instance, I work on building a task management app designed to help users organize and prioritize their to-do lists. Designing the User Interface as Choosing colors, layout, and interactive elements to make the app user-friendly and visually appealing.

1. What are the biggest challenges in this type of work?

According to him Communication and Collaboration are the biggest challenges not only in this field as Working on a team requires effective communication, especially when collaborating with non-technical stakeholders. And Keeping Up withRapid Technological Change New tools, frameworks, and languages are constantly emerging, requiring developers to stay updated which is quite usual.

1. What is an entry level salary in this job?

Entry-level Salary can vary up to the experience you have but in most cases, salary would start from CAD 75,000 – 95,000

1. Are there opportunities to grow in this field and could you describe how it works?

Yes, software development offers significant growth opportunities, and career advancement typically works through experience, skill-building, and specialization. Here’s how it works Entry-Level to Mid-Level Roles then Senior Developer and Technical Lead after that managerial role.

1. Tell me about the hiring process you went through- what does it involve?

He said, firstly he got a call for an interview from one of the applied companies. Then he gave an interview to the HR of the company. Then he completed a technical test, which included a coding exercise, an algorithm problem, and a take-home project. There were multiple rounds of technical interviews. Then he was asked to discuss past projects, challenges he faced, and how he resolved conflicts and met deadlines. Finally, in the last part of the interview, he discussed the yearly package with the company and discussed his role in the company.

1. What is the best advice you have for me?

He said you should work hard, and he advised me to clear all the concepts. He suggested me make an account on LinkedIn and have some experience in your co-op to get a successful career.

1. What are the other jobs where I can apply after this course?

So, he said I have multiple careers after this program like software engineer, developer, web designer, database engineer, data analyst.

1. Why do you choose a Software developer career?

Well, he said it was his dream from childhood and also he likes the development of websites and apps.

1. What is the difference between software developers and designers?

So, he answered me that developers are those who make the software and a designer are those who design the software.

**CHOICE QUESTIONS #1-5** (choose 3 of these)

1. What are the important "key words" or "buzz words" to include in a resume or cover letter when job hunting in the field?

According to him Technical Skills, Languages, Software Development Skills, Project and Process Management which is most important he said.

1. Where might job listings be found?

LinkedIn, Glassdoor, and Indeed are the common sites to find jobs Anoop said.

1. What professional websites and organizations should I be aware of?

The Association for Computing Machinery (ACM) is the organization that I can look for and Stack Overflow and GitHub are common websites he said.

**REFELCTIVE QUESTIONS** (answer both of these) like

1. List 1 example of what you might change for your next informational interview.

I will consider preparing a set of more specific questions tailored to the interviewee’s current role or recent projects.

1. List 1 example of what you did well during your informational interview.

I think I will ask thoughtful follow-up questions based on the interviewee's responses

# References

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| [1] | ["Shopify," [Online]. Available: https://www.shopify.com/ca.](file:///C:\Users\preet\Downloads\%22Shopify,%22%20%5bOnline%5d.%20Available:%20https:\www.shopify.com\ca) [Accessed 1 11 2024]. |
| [2] | ["blackberry," [Online]. Available: https://blackberry.qnx.com/en](%22blackberry,%22%20%5bOnline%5d.%20Available:%20https:/blackberry.qnx.com/en). [Accessed 1 11 2024]. |
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| [4] | ["canarie," [Online]. Available: https://www.canarie.ca](%22canarie,%22%20%5bOnline%5d.%20Available:%20https:/www.canarie.ca)/ [Accessed 1 11 2024]. |
| [5] | ["invest," [Online]. Available: https://www.fortrade.com/minilps/en/pro-dark](%22invest,%22%20%5bOnline%5d.%20Available:%20https:/www.fortrade.com/minilps/en/pro-dark)[Accessed 1 11 2024]. |