My Engineering Company Lab
The search for Engineering Companies, Lab 2

Leonardo Fusser, 1946995

ABSTRACT

This lab consisted of researching/searching on an engineering company.

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Department of Computer Engineering Technology
The Profession of Computer Engineering Technology
Andreea Iftimie and Manijeh Khataie

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PART 2: RESULTS FROM THE SEARCH

➢ Company #1: *Cisco Systems*

-*Product*: Cisco develops, manufactures and sells networking hardware, telecommunications equipment and other high-technology services and products.

-*Headquarters:* San Jose, California, United States (center of Silicon Valley).

-*Job openings:* (1) Systems Engineer-(Montreal/Full-time), (2) Renewals Manager-(Montreal/Full-time)

-*Job openings in my field:* (1) Software Engineer-(Ottawa/Full-time), (2) Junior Software Developer-(Calgary/accepting applicants).

-*Offices:* (1) Montreal: 1800 Avenue McGill College, (2) Canada: located in various provinces.

-*Job requirements:* (Software Engineer)

- Recent graduate or on your final year of studies toward a bachelor's degree or master's degree in Computer Science, Computer Engineering, Electrical Engineering, or a related major such as Math, Physics.
- You're hungry to get your hands on new, exciting technologies and have a deep understanding of the fundamentals of computer science and engineering.
- Up-to-date on programming and scripting languages.
- You can tackle problems with ease and take a creative approach in debugging programs.
- Excited to work on an extended team and can expertly collaborate with others.
- Can be succinct and to the point using verbal and written skills.

-*Job requirements:* (Junior Software Developer)

- Ruby on Rails or equivalent.
- HTML/CSS/JavaScript.
- Able to navigate your way around a Unix System.
- SQL.
- Data structures and algorithms.

➢ Company #2: *Apple*

-*Product:* A technology company that sells consumer electronics, computer software and online services.

-*Headquarters:* Cupertino, California, United States.

-*Job openings:* (1) Apple Specialist- (Montreal/Full, Part-time), (2) Apple Genius- (Montreal/Full, Part-time)

-*Job openings in my field:* (1) Software Developer- (Cupertino/Full-time)

-*Offices:* (1) Canada HQ: 120 Bremner Boulevard #1600, Toronto, (2) no other offices, only Apple Stores located throughout the province.

-*Job requirements:* (Software Developer)

- Solid understanding of software development principles.
- A good understanding of modern file system and potential issues.
- Knowledge of test methodology used in the storage.

- Good scripting skills in at least one common language (Python, Perl, Shell).
- Understanding of storage interfaces including PCIe, NVMe, SCSI.
- Familiarity with OSX/Unix.
- Excellent communication skills, both oral and written.
- Comfortable in working with cross-functional team to drive efficient bug resolution.
- Knowledge of C, Apple script and TCP/IP networking preferred.
- Bachelors in Computer Science or Computer Engineering or Electrical Engineering.

- ➢ Company #3: *Belden*

  -*Product:* A company who manufactures networking, connectivity, cable products and designs, manufactures, markets signal transmission products for demanding applications.
  -*Headquarters:* St. Louis, Missouri, United States.
  -*Job openings:* (1) Product Development Manager- (Montreal/Full-time), (2) Store Clerk/Level 1- (Montreal/Full-time).
  -*Job openings in my field:* (1) Product Development Manager (Electronic Components Design)- (Montreal/Full-time), (2) Software QA Engineer/Broadcast Solutions- (Montreal/Full-time).
  -*Offices:* (1) 2310 Boulevard Alfred Nobel, Saint-Laurent (Also the Canadian HQ).
  -*Job requirements:* (Product Development Manager)

  - Bachelor's degree in Mechanical Engineering.
  - 5+ years of relevant experience in product development.
  - Strong expertise in SolidWorks / EPDM.
  - Experience in Project management / Stage Gate process.
  - Communication skills.
  - Team player, flexible and open minded.
  - Excellent English and French, both written and spoken.
  - Availability for business trips.
  - Computer skills: MS Office, Solidworks, 3D printer.

  -*Job requirements:* (Software QA Engineer/Broadcast Solutions)

  - Excellent verbal and written communication skills in English and French.
  - Ability to interact with Internal and external customers.
  - Proven track record of successfully working in team environment which develops professional software and hardware components.
  - Quick learner.
  - Self-motivated and very persistent.
  - Strong attention to details.
  - Willing to go extra miles to get jobs done.
  - Minimum 5 years evaluating software in a structured environment.
  - Minimum 5 years preparing test procedures.
  - Experience with scripting (PowerShell).
  - Experience of testing software on custom hardware platform & third party devices.

- Experience with video and audio streaming is an asset.
- Experience of creating automated test scripts.
- Complex event driven system testing with hardware, considered an asset.
- Bachelor of Engineering or Computer Science or pertinent College Diploma.
- Knowledge of Linux & Windows Operating Systems.
- Knowledge of TCP/IP networking Knowledge of HTML5.
- Knowledge of video standards and/or computer graphics preferable.
- Knowledge of broadcast equipment, considered an asset.
- Knowledge of testing complex systems, including hardware products, considered an asset.

PART 3: POWERPOINT PRINTOUT

*The PowerPoint presentation can be viewed at the link below.

https://drive.google.com/file/d/1wHVQLR4kjr55AG-y3TrE8qiqa3tYQDAB/view?usp=sharing

PART 4: WHAT I FOUND

➢ Company #1: *Open Systems international, INC. (OSI)*
-*Job opening:* Electrical Engineer/Computer Engineer- (Montreal/Full-time)
-*Job requirements:*

- Bachelors of Science in Electrical Engineering, Computer Engineering, Physics, Systems Engineering or related field.
- 0-5 years' experience.
- Knowledge of computer programming. An introduction to C programming at minimum.
- Knowledge of computer architectures, networking, databases and operating systems.
- Excellent organization, interpersonal and leadership skills.
- Strong commitment to providing superior customer service.
- Ability to work on several projects in parallel in a fast-paced environment.
- Excellent analytical and problem solving skills
- Ability and flexibility to travel to domestic and international customer sites.
- Fluent in French and English.

-*Job responsibilities:*

- Design, plan, integrate, test and commission hardware and software requirements on customer systems.
- Provide technical sales support of state-of-the-art power systems applications for real-time control systems, including sales presentations and product demonstrations.
- Define project requirements through customer communication and communicate the requirements to other departments as necessary.
- Provide networking and system/application design.

- Perform hardware, software and system installation, integration and testing for projects.
- Customize system, hardware and network configuration based on customer requirements.
- Provide customer support and assistance per contract maintenance and warranty.
- Assist in creating training materials and project documentation as needed.

> Company #2: *Valsoft Corporation*
> -*Job opening:* DevOps Engineer- (Montreal/Full-time)
> -*Job requirements:*

- Strong communication skills.
- Excellent analytical and problem-solving skills.
- Experience building systems on both Azure and AWS.
- Strong knowledge in CI/CD pipelines.
- Proficient in programming and scripting languages, e.g. Python/PowerShell etc…
- Experience in source control management tools.
- Experience in networking architecture.
- Strong knowledge and experience in micro service architecture.
- Experience with containers and orchestration such as Kubernetes and Docker.
- Experience in configuration management and provisioning.
- Experience in deployment best practices.
- Experience with SQL and database performance tuning.
- Deep understanding of code development constructs such as automated build, code merging and branching strategies, automated testing and reporting and process flow control.
- 5+ years of demonstrable virtualization and cloud services experience.
- BSc in Computer Science or Engineering or combined experience and education.
- Desirable certifications include Azure and AWS.

-*Job responsibilities:*

- Design and implement to improve infrastructure reliability, scalability, performance, and repeatability of setup and deployment.
- Ensure system and network security.
- Create and maintain alert and monitoring solution to promptly identify and escalate unexpected issues.
- Automate system, application deployment and management processes - aiming for efficiency.
- Bug/issue investigation, triage and resolution.
- Build and implement a continuous integration and continuous deployment platform.

BIBILOGRAPHY

(List of sites visited during this lab)

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Leonardo Fisser   Sept. 9ᵗʰ

The Proffessor of Computer
Engineering
Manijeh Khatae and Andreea Iftine

Companies I know ...

> Cisco
> Apple
> IBM
> Ericsson
> Emerson / Laurentide Controls
> Hewlett-Packard (HP)
> Belden I.B.D.N
> Videotron corp.
> Bell corp.
> Electronic Recycling Association of Canada (ERA)
> Dell
> Google
> Speedbox Technologies
> Element AI
> Spartlogics
> GSoft
> TecSys Inc.
> Telecom Inc.
> SBK Telecom