

Tech Job Search Workshop

Sunday, November 24, 2019



Developer Student Clubs
Mount Allison University

Introduction

Olivier Bourgeois

B.Sc. Computer Science ('18)

Sr. Software Eng. at Dell EMC

MountAllison
UNIVERSITY

DELLEMC



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Industry Opportunities

“The best thing about a Boolean is that even if you are wrong, you are only off by a bit.”

Finding Opportunities

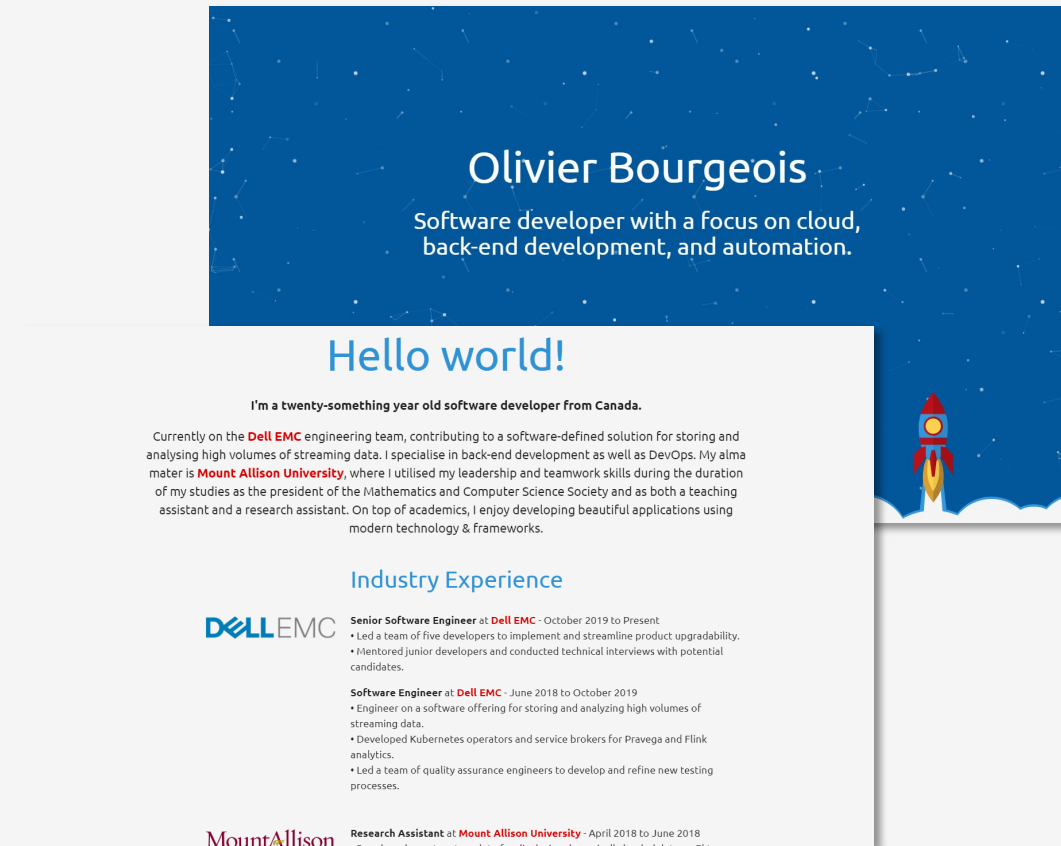
- There are multiple ways of finding opportunities:
 - Career fairs / recruiting events
 - Companies' career sections
 - Job aggregator services
 - Crowd-sourced lists
- Networking is also a very valuable tool, which allows you to:
 - Keep track of where past colleagues and classmates are at
 - Ask for references and recommendations
 - Get direct contact with employees at desired companies and industries
- LinkedIn is the biggest and most popular professional networking service
 - Also doubles as a prominent job searching and application platform

Getting Noticed

- There are many ways of getting noticed:
 - Side projects
 - Local meetups
 - Blogging
 - Research projects
 - Tutoring
 - Personal websites
 - Stack Overflow presence
 - Social media presence
 - Volunteering
 - Any many more!

Getting Noticed

- Side projects are a great way of getting noticed without professional experience
- Can be as simple as a course term project or a one-page personal website
- Ideally demonstrates eagerness to learn and solve problems (not strictly skills)
- Bonus points if the project is hosted on a source code sharing platform (e.g. GitHub)



Resume

Olivier Bourgeois

Software developer with a focus on cloud, back-end development, and automation.
olivier@bourgeois.io — <https://bourgeois.io>

Industry Experience

Dell EMC <i>Senior Software Engineer</i>	Jun 2018 – Present <i>Moncton, NB</i>
<ul style="list-style-type: none">· Engineer on a software offering for storing and analyzing high volumes of streaming data.· Developed Kubernetes operators and service brokers for Pravega and Flink analytics.· Led a team of five developers to implement and streamline product upgradability.· Mentored junior developers and conducted technical interviews with potential candidates.· Led a team of quality assurance engineers to develop and refine new testing processes.	
Canada Moto Guide <i>Software Developer</i>	Dec 2016 – Sep 2017 <i>Sackville, NB</i>
Dell EMC <i>Software Engineering Intern</i>	Apr 2017 – Aug 2017 <i>Moncton, NB</i>
EMC Corporation <i>Software Engineering Intern</i>	Apr 2016 – Aug 2016 <i>Moncton, NB</i>

Education

Mount Allison University <i>B.Sc. Computer Science, Mathematics Minor</i>	Sept 2014 – May 2018 <i>Sackville, NB</i>
<ul style="list-style-type: none">· President of the Mathematics and Computer Science Society.· Senior team member for the International Collegiate Programming Contest.· Teaching Assistant for the Department of Mathematics and Computer Science.· Peer tutor for the Meighen Centre for Learning Assistance and Research.	

Awards

· Recipient of the Game Changer Award for exceptional leadership and contribution.	Oct 2019
· Recipient of the Dell Champion Award for outstanding contribution and productivity.	Mar 2019
· Dell EMC Employee of the Month designation under the Unstructured Storage Division.	Dec 2018
· Second position at the Atlantic Canadian ACM-ICPC Preliminary Competition.	Oct 2017
· Fourth position at the Atlantic Canadian ACM-ICPC Preliminary Competition.	Oct 2016
· Fifth position at the Atlantic Canadian ACM-ICPC Preliminary Competition.	Oct 2015

Projects

- My portfolio of open-source projects is available at github.com/bourgeoisior.

Technical Strengths

Languages	Java, Golang, Python, Kotlin, C++, Shell, JavaScript
Tools	Git, Vim, JIRA, Bitbucket, Jenkins, Ansible, Docker, Kubernetes
Concepts	Algorithm Design, RESTful Principles, Agile Methodologies
Systems	Linux, macOS, Windows

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Dell EMC

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Jun 2018 – Present

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Canada Moto Guide

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EDUCATION

- | | |
|--|---|
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<i>B.Sc. Computer Science (expected graduation in May 2018)</i> | September 2014 - Present
Sackville, NB |
|--|---|
- Total Cumulative GPA of [REDACTED]
 - Teaching Assistant for the Introduction to Computer Science class.
 - Part of the junior team for the International Collegiate Programming Contest.

EXPERIENCE

- | | |
|--|---|
| Mount Allison University
<i>Technician</i> | September 2015 - Present
Sackville, NB |
|--|---|
- Advising staff and faculty members with technology-related questions.
 - Configuring and setting up new computers and systems.
 - Troubleshooting various software and hardware problems.
- | | |
|--|---|
| [REDACTED]
<i>Maintenance Worker/Technician</i> | June 2015 - August 2015
Grande-Digue, NB |
|--|---|
- Troubleshooting problems with the staff computers and network.
 - Archiving historical artefacts and photo albums.
 - Setting up rooms for community events.
- | | |
|------------------------------------|---|
| [REDACTED]
<i>Museum Docent</i> | June 2012 - August 2014
Grande-Digue, NB |
|------------------------------------|---|
- Leading tour groups of visitors around the multiple buildings.
 - Preparing guided tours for the summer.
 - Assisting in the tourist center.

PROJECTS

- | | |
|--|--------------------------------------|
| Apollo
<i>CLI Multimedia Center and Database</i> | Summer 2015
github.com/[REDACTED] |
|--|--------------------------------------|
- Using termbox as a terminal-based user interface.
 - Implementing various public APIs to fetch the various media tags.
 - Using the JSON format to load and save configuration and database files.

TECHNICAL STRENGTHS

- | | |
|------------------|---------------------------|
| Languages | Java, Golang, C++, Python |
| Systems | Windows, Linux, MacOS |
| Tools | Git, Vim |

REFERENCES

- References available upon request.

Resume

EDUCATION

Mount Allison University

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September 2014 - Present

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Resume

PROJECTS

Apollo

Summer 2015

CLI Multimedia Center and Database

github.com/

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TECHNICAL STRENGTHS

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Systems	Windows, Linux, MacOS
Tools	Git, Vim

REFERENCES

References available upon request.

Applying

- Applying typically involves filling out a form containing some subset of:
 - Personal information
 - Education or professional background
 - Attachment of a resume and/or cover letter
 - Open-ended questions (e.g. “Why do you want to work at company X?”)
- While not required, it can be very beneficial to craft a cover letter
- Do some research on potential employers
- Customize your application or resume around the position
- Getting a referral can improve how your application is viewed and skip steps
- Follow up via emails with your recruiter or hiring manager often
- Always negotiate benefits and salary, and never say a number first
 - Helpful guidelines: <https://teamcandor.com/salary/guide/>

Interviewing

“If at first you don’t succeed, call it version 1.0.”

Interviewing Overview

- Interviewing can vary between sizes and types of companies
- Generally they involve some subset of:
 - Resume screening
 - Coding assignment(s)
 - Phone interviews(s)
 - On-site interview(s)
- The interviews can be behavioral, technical, or a mix of both

Interviewing Overview

- Behavioral interviews are familiar to most, but technical interviews introduces a whole new set of challenges
- It's not common to spend 20 minutes of the interview discussing the trade-offs between an array and a linked list, or solving questions looking like this:

Write a function that, taken a list of sorted points, computes and returns the area of the formed polygonal shape.

Interviewing Overview

Write a function that, taken a list of sorted points, computes and returns the area of the formed polygonal shape.

- Typically, technical questions like the above are solved using these steps:
 - Asking questions to resolve any ambiguity
 - Planning and designing a suitable algorithm
 - Writing clean code
 - Testing carefully and fixing mistakes

Mock Interview



Mock Interview

Write a function that, given a binary tree, prints the values of the nodes using post-order traversal.

```
    1
   / \
  2   3
 / \ / \
4 5 6 7
```

Prints: 4 5 2 6 7 3 1

Mock Interview

How would you modify this function to return whether the tree is also a sum-tree?

```
    1
   / \
  2   3
 / \ / \
4 5 6 7
```

Returns: false

```
    22
   / \
  9   13
 / \ / \
4 5 6 7
```

Returns: true

Mock Interview

Could you do an in-place conversion of any integer value binary-tree to a sum-tree?

1
2 3
4 5 6 7

Before

22
9 13
4 5 6 7

After

References

“Debugging is like being the detective in a crime drama where you are also the murderer.”

Appendix

- Crowd-sourced employer lists
 - <https://github.com/elaine-zheng/summer2020internships>
 - <https://github.com/ChrisDryden/Canadian-Tech-Internships-Summer-2020>
 - <https://github.com/cmackenzie1/new-grads-2020>
- Job aggregator services
 - <https://www.linkedin.com/jobs/>
 - <https://ca.indeed.com/>
 - <https://angel.co/>
- Software interviewing practice
 - <https://open.kattis.com/>
 - <https://leetcode.com/>
 - Cracking the Coding Interview, by Gayle McDowell
- Misc. good development books
 - The Pragmatic Programmer, by Andy Hunt
 - Clean Code, by Robert Martin

Any Questions?

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