

Lance Lafontaine

SOFTWARE ENGINEERING STUDENT

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Skills & Technologies

Linux, DevOps & Cloud

Unix tools, philosophy & scripting
Containers, Kubernetes, Docker
Config management, Salt, Ansible
Infra as Code, Terraform, Packer
CI/CD & cloud native architecture

Python

Django, Flask, SQLAlchemy
requests, pytest, argparse
itertools, asyncio, generators
keras, tensorflow, Jupyter
scikit-learn, numpy, nltk

Ruby

Ruby on Rails, Sinatra
rspec, minitest
sprockets, turbolinks
nokogiri, roda
hanami, dry-rb

Other

Rust, C/C++, Embedded
JavaScript, React, Angular
Security, crypto, networking
SQL & NoSQL databases
Java, Scala, JVM

Education

B.Eng. in Software Engineering

CONCORDIA UNIVERSITY

Montreal, Quebec, Canada

Sept. 2014 - May 2018

• Relevant coursework:

- *Software Engineering*: Software Architecture and Design I & II, Advanced Program Design, Software Process, Testing & QA
- *Computer Science*: Data Structures & Algorithms, Operating Systems, Systems Security, Databases, Compilers, Networking
- *Mathematics*: Theoretical Computer Science, Discrete Mathematics, Probability & Statistics, Calculus & Numerical Methods

• Cumulative Grade Point Average: 3.42/4.3

B.Sc. Honours in Cell and Molecular Biology

CONCORDIA UNIVERSITY

Montreal, Quebec, Canada

Sept. 2011 - May 2014

• Relevant Coursework: Bioinformatics and Computational Chemistry, Molecular Modeling with Python

• Cumulative Grade Point Average: 3.91/4.3

DEC. Sciences

JOHN ABBOTT COLLEGE

Montreal, Quebec, Canada

Sept. 2009 - May 2011

Work Experience

Shopify

SOFTWARE DEVELOPER

Montreal, Quebec, Canada

May. 2018 - Aug. 2018

May. 2017 - Aug. 2017

- Contributed a number of new user-facing features as well as large refactors to Shopify's core platform.
- Played a significant role as a technical domain expert for multiple projects in the Domains & SSL team's ongoing roadmap.
- Developed maintainable code with performance in mind as part of one of the world's largest Ruby on Rails codebases.
- Participated in the organization's test-driven development approach to continuous integration and deployment.

AppDirect

TECHNICAL OPERATIONS & SERVICE AUTOMATION DEVELOPER

Montreal, Quebec, Canada

Sept. 2017 - Apr. 2018

- Created a continuous integration pipeline for complex infrastructure components which supported the business.
- Standardized continuous integration and delivery principles to enable large platform changes with no service outages.
- Leveraged a variety of technologies such as Docker, Terraform, Packer, Salt, Ansible, and cloud platforms like AWS.
- Developed a variety of unit and integration tests to query the state of infrastructure once operations had been applied

AppHelp by AppDirect

WEB APPLICATION DEVELOPER

Montreal, Quebec, Canada

Sept. 2015 - Apr. 2017

- Developed web applications with technologies like Javascript, React, Redux, AngularJS, Node.js, Python, Scala, C++ and more.
- Consistently applied a test-driven development (TDD) and agile approach in order to maintain complex software systems.
- Successfully led the development and delivery of user-facing projects with changing requirements and shifting deadlines.
- Took part in the organization's processes, code reviews, project demos, lunch & learns, hackathons and more.

Concordia University

WEB DEVELOPER AND TEAM ADVISOR

Montreal, Quebec, Canada

May 2014 - Oct. 2014

- Designed and developed a team project wiki with technologies like Javascript, jQuery, CSS and MediaWiki.
- Excelled in a leadership role as a part of the Science and Engineering team.
- Received a silver medal at the International Genetically Engineered Machine competition for research in biotechnology.

Projects & Open-Source Contributions

Procezeus - JusticeAI

[HTTPS://GITHUB.COM/CYBERJUSTICELAB/JUSTICEAI](https://github.com/CyberJusticeLab/JusticeAI)

AI-powered Chatbot

Sept. 2017 - present

- A web-based chatbot that leverages machine learning and NLP inform tenants/landlords of recourses for their legal troubles.
- Closely coordinated and developed with product owners as stakeholders in order to deliver value to their end users.
- Extensively unit and integration tested to leverage continuous integration and deployment workflows

Dungeons & Dragons Simulator

[HTTPS://GITHUB.COM/LANCELAFONTAINE/DUNGEONS-AND-DRAGONS](https://github.com/LancelaFontaine/Dungeons-And-Dragons)

C++ Graphical Game

Sept. 2016 - Dec. 2016

- Created a graphical video game based on complex stakeholder requirements.
- Developed the application in modern C++ using technologies and libraries like SFML, CppUnit, and Doxygen.
- Used design patterns when appropriate such as observer, MVC, factory, strategy, decorator and more.

CAPSTONE Reservation System

PRIVATE REPOSITORY

Web app prototype for students

Sept. 2016 - Dec. 2016

- Led a team of 8 engineering students to build a large software system with Python & Django, Javascript and SQLite.
- Effectively developed the back-end with object-oriented patterns like identity maps, unit of work, and object relational mapping.
- Project completed in the context of the SOEN 343 Software Architecture & Design I course at Concordia University.

Personal Website

[HTTPS://GITHUB.COM/LANCELAFONTAINE/LANCELAFONTAINE.GITHUB.IO](https://github.com/LancelaFontaine/LancelaFontaine.github.io)

Home on the Web

Nov. 2014 - present

- Designed over many iterations and developed with HTML5, CSS3 and Javascript with minimal use of libraries or frameworks.
- Blazing fast on all devices: Google PageSpeed Insights rates it at 87/100 for mobile and 93/100 for desktop use.
- Fully responsive on mobile devices as ranked by the Google Mobile-Friendly Test.

Other Open-Source Work

Found on GitHub

rust-lang/book	Cyberjusticelab/JusticeAI	lancelafontaine/coding-challenges
lancelafontaine/dotfiles-scripts	lancelafontaine/ractliffe-dog-training	lancelafontaine/Schedulator
lancelafontaine/sqlbolt-exercises	lancelafontaine/opengl-final-project	lancelafontaine/hacker-of-empires
lancelafontaine/vim-cheatsheet	lancelafontaine/pressthebutton	lancelafontaine/caproomster
lancelafontaine/PokemonCries	lancelafontaine/SynBio-Blocks	lancelafontaine/resume

Awards & Events

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| 2017 | <ul style="list-style-type: none">• Placed 9th out of 82 teams in Canada at the IEEEExtreme programming competition.• Elected Vice-President of Competitions at Concordia's Software and Computer Science Society (SCS).• Placed 3rd in the "Puzzle Hero" and 2nd in the "Mobile" challenges at the CSGames competition.• Represented AppHelp by AppDirect at the Canadian University Software Engineering Conference (CUSEC). |
| 2016 | <ul style="list-style-type: none">• Placed 9th out of 77 teams in Canada at the IEEEExtreme programming competition.• Selected to compete in the CSGames competition and placed 4th out of 30 North American teams.• Placed 1st out of approximately 20 teams at the quarterly AppHelp by AppDirect internal hackathon. |
| 2015 | <ul style="list-style-type: none">• Received the Inspired Technology Associate award at Staples Canada. |
| 2014 | <ul style="list-style-type: none">• Received a perfect grade in the evaluation of my B.Sc. undergraduate thesis defense at Concordia University.• Graduated from a Bachelor of Science with honours and distinction awards.• Received a silver medal at the International Genetically Engineered Machine competition (iGEM). |
| 2013 | <ul style="list-style-type: none">• Received the Inspired Technology Associate award at Staples Canada.• Received a bronze medal at the International Genetically Engineered Machine competition (iGEM).• Was placed on the Faculty of Arts and Sciences Dean's List. |

Publications

N. Kharm, L. Lafontaine and R. Fenster.

"Biofuels are Not the Full Answer, but They Can Be Part of a Solar-Oriented Solution to Our Energy-Climate Dual Crisis"

International Journal of Renewable Energy and Biofuels. IBIMA Publishing. Accepted in March 2014. Published in August 2016.