

# Spencer M. Fabricant

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## OBJECTIVE

Looking to pursue a challenging position where I can effectively leverage my background in bioinformatics with my experience as a software engineer. Ideally, a problem that would require designing algorithms and systems to solve problems by processing massive stores of data.

## WORK EXPERIENCE

### **Google Inc. (Cambridge, MA, October 2016 to September 2017), Site Reliable Engineer**

- Worked on the backend of a system to automate the rollouts of software updates.
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### **Escher Group, Ltd. (Boston, October 2014 to Present), Software Engineer**

- Designed and implemented system management and monitoring toolkit for a distributed system of computers. (C#)
- Implemented software to facilitate software installation on a network of computers.
- Worked on Point of Sale software customization

### **Ayuda Media System (Montreal, Summer 2013), Software Development Intern**

- Worked on stabilization of the Billboard Management System, a company-wide project catered to its clients.
- Merged a third-party partner's additions into the project.
- Became intimately familiar with Chrome's debugging tools
- Included work on the .NET platform, Windows Azure, and some functional programming in LINQ

### **Hatfull Labs at University of Pittsburgh (Summer, 2011), Lab Intern and Web Developer**

- Associative webmaster for <http://phagesdb.org/>, a website owned by a laboratory at the University of Pittsburgh
- Managed extensive database of bacteriophage strands
- Created pages dedicated to data processing and graphing utilizing Javascript, DJANGO, Python, SQL, and the Google Maps API.
- See an example at <http://phagesdb.org/GPSmap/>

## PERSONAL PROJECTS

### **Small projects worth mentioning (2014-2015)**

- Markov *A simple markov chain generator made with the intended purpose of feeding it Twilight with the entire works of Shakespeare just to see what would happen*
- MazeBot *Procedurally generate mazes*
- PixelBot *Procedurally generate small pretty pixelated icons*
- Project Euler, various problem sets

### **SFSecurity (2014)**

- Creator and developer of a smart home security system application that monitors a room via webcam, detects the presence of the user, and alerts the user in case of an intruder via email.

- Written in Java, runs on most platforms.
- Source code can be found at: <https://github.com/SpencerFabricant/SFSecurity/>

### Code Jam (Fall 2012)

- Created a program that reads from a live stream of stock prices and determines whether to buy or sell at any given moment; all prices and buy/sell points as well as running averages are graphed in real time. At the end of the simulated day, it compiles everything to a .json file.
- Collaborated with a team of four others and saw the project through to completion.
- Written in Java; source code available upon request.

### WorksheetWriter (2011) a

- Creator and developer of a self-contained java executable built to make sets of customized math worksheets, complete with answer keys.
- Web interface can be found at <http://cs.mcgill.ca/~sfabri1/wwriter/>

## EDUCATION

*Bachelor of Science,*

**McGill University**

*Montreal, QC*

Bachelor of Science, Graduated June 2014

Concentration: Joint Computer Science and Biology

*Notable coursework: Computational Biology, Short-read sequence analysis, graphics in OpenGL, vision in OpenCV and Matlab, algorithm design*

## UNDERGRADUATE PAPERS

### COMP-401: Using short-sequence data to reconstruct 16S rDNA

- Created a software package that analyzes short-read sequence data
- Data is pre-processed into a De-Bruijn graph which is then simplified as much as possible and visualized
- Intended to use on the 16S genes of microbiome sample data.

### Computer Vision: Using Shape Context Matching

- Worked with a partner and implemented shape-context matching using OpenCV, and wrote up a full report.

## COMPUTER SKILLS

*Languages & Software:* Java, C, C++ (including familiarity with SDL and related libraries), C#, L<sup>A</sup>T<sub>E</sub>X, jstl and JSP, ASP.NET, SQL, MIPS, Javascript, Python, django, Visual Studio, Eclipse, Fiddler, Araxis Merge

*Operating Systems:* Windows, Unix




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<sup>0</sup>Online PDF version: [http://SpencerFabricant.github.io/spencer-fabricant\\_resume.pdf](http://SpencerFabricant.github.io/spencer-fabricant_resume.pdf)

<sup>0</sup>This resume was last updated on 7 Sept. 2017