

# François M. Demoullin

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Nationality: Luxembourgish

## Education

**University of British Columbia**, Vancouver, Canada  
B.Sc., Major in Computer Science (GPA: 4.30 on 4.33 scale)  
Expected graduation: June 2017

**September 2013 - Present**

**University of California, Davis**, CA, USA (exchange year)

**September 2015 - Present**

## Experience

**Research Assistant – GPGPU Lab**

**September 2015 - Present**

- Insights into Image Processing and Parallel algorithms research by being part of the GPGPU lab led by **Dr. John Owens**
- Integration into OpenGL applications and testing of **Kerry Seitz's** (PhD candidate) meta-shading pipeline using Lua.

**Research Assistant - Networking**

**September 2015 - Present**

- UC Davis networking research under the supervision of **Dr. Norm Matloff**
- Implementation of multi-threaded Server using Python

**Squeakshark.com – Co-founder**

**December 2014 - Present**

- Launch of Squeakshark, a service that helps up and coming artists boost their social media presence
- Full-stack developer: worked on web front end (JavaScript, HTML, CSS, jQuery) and backend (PHP)

**Computer Science Teaching Assistant**

**September 2014 – January 2015**

- Computer Science class on HTML, JavaScript and UNIX
- Responsible for weekly labs and office hours

**Ville de Luxembourg (City Government) - Intern**

**July 2014**

- Web application using ZK, a Java based web framework
- Implementation of online recruitment platform

**BNP Paribas (4<sup>th</sup> largest bank worldwide) – Software Architecture Intern**

**June 2014**

- Studied large scale log-management solutions in banking sector
- Proposed solution: Elasticsearch in combination with Kibana and a custom uniform log syntax
- Outcome: Significant reduction of bug detection time and increased data security

## Projects

**Particle System on GPU**

- Parallelized GPU implementation, supporting the rendering of up to 1 million particles
- Using C++, the OpenGL graphics API and GLSL as the shader language
- <https://bitbucket.org/FrancoisDemoullin>

**Tweet Map Web Application**

- Web application allowing users to plot any Twitter tweets on a world map
- Using Ruby on Rails as the Web Framework, deployment using Heroku
- <http://tweet-maps.herokuapp.com/>

## Skills

**Programming languages**

- C++, Java, JavaScript, GLSL, HTML5, CSS
- Familiar with: C, Python, Ruby on Rails, Drupal7, PHP, Lua

**Languages:** English, French, German, Luxembourgish and Spanish