François M. Demoullin

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Github: https://github.com/bftf
Bitbucket: https://bitbucket.com/FrancoisDemoullin

Education

University of British Columbia, Vancouver, Canada **September 2013 - Present**
B.Sc., Major in Computer Science (GPA: 4.30 on 4.33 scale)
Expected graduation: June 2017

University of California, Davis, CA, USA (exchange year) **September 2015 - Present**

Experience

UC Davis GPGPU Lab - Research Assistant **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.

UC Davis Networking group study - Research Assistant - **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.com, a service that helps up and coming artists boost their social media presence
- Full-stack developer: worked on web front end (JavaScipt, 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 (4th 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

Volume Renderer / Volumetric Ray Caster

- Volume visualization tool using tri-linear as well as tri-cubic interpolation methods
- Using C++, the OpenGL graphics API and GLSL as the shader language
- Presentation: http://1drv.ms/1OZrDQF / Source code: https://bitbucket.org/FrancoisDemoullin/volumerenderer

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