



Oscar BRUNELLE

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## LOOKING FOR AN INTERNSHIP

STUDENT IN 4<sup>th</sup> YEAR IN COMPUTER ENGINEERING  
- FRENCH BILINGUAL -

As part of my studies at the University of Ottawa, I am looking for an internship from september to december 2020, for a duration of at least 14 weeks.

My work experience is mainly focused on **web development**, I am also trained and interested to work in other computing fields (**network, cyber-security, simulation / 3D / video-games**).

## FORMATION

2017 - Today : **Bachelor of Applied Science in Computer Engineering (work-study)**  
*University of Ottawa, Ottawa (Canada)*

2014 - 2017 : **High School Diploma in Science**  
*Marguerite de Valois' High School, Angoulême (France)*

## LANGUAGES

French : Native Language  
English : Bilingual  
Spanish : School level  
Russian : Basics

## PROJECTS

Used WAMP, MySQL and phpMyAdmin.  
Created tools for courses and repetitive tasks.  
Cloned simple games.

### Video-game development

Experimental projects in **Unity** with use of **Blender**.

Research and programming of video-game related **algorithms**: shortest path, collision detection, calculation of forces on objects...

Created a **game engine** to simplify and standardize development; extensive knowledge of Canvas to create video-games and graphs using Javascript.

Video-game player.

## WORK EXPERIENCES

**2020/01 - 2020/05 : Web developer (Front-end) - National Research Council (NRC) (Ottawa - Canada)**

Worked in a team as part of the construction and energy department, learned about the use of energy in buildings and climate change challenges.

Developed tools to visualize and analyse data on a website, using the d3.js library.

Used Java to create new endpoints for data.

**2019/05 - 2019/09 : Web developer (Fullstack) - Datacloud Networks (Hearst - Canada)**

Web development (main task) : used MySQL for the database, PHP for the back-end.

IPTV project : searched and contacted new partners and sellers, installed antennas and visited installation sites, learned about the different facets of IPTV, wrote reports.

Android development : developed a proof-of-concept Android application to get GPS data.

**2018/06 - 2018/07 : Client support - Schneider Electric (Angoulême - France)**

Helped in client support, created a database to make issue solving easier.

Learned about UL / CSA / IEEE standards.

## SKILLS AND TECHNOLOGIES

### Software

- **Web** : Web languages (html, css, js), front-end libraries (jQuery, d3.js, Bootstrap, Font Awesome) and back-end languages (PHP, Java).
- **Database** : Used MySQL in a professional environment, used SQLite and Firebase for an Android application in a school project.
- **Java** : Concurrency and multi-threading, semaphores.
- **C / C++** : Creation of processes and pipes.
- **Android** : Application testing using Espresso and CircleCI, implemented a database, used GPS functionalities.
- **Go** : Concurrency with goroutines and pipes, semaphores.
- **Python / Matlab / R** : Basic use for classes.
- **Prolog / Scheme** : Course on the different programming paradigms.
- **Version control** : Used GitLab, Subversion SVN and Tortoise SVN in a professional environment, used GitHub for personal and groups projects.
- **Networks and communications** : Used network analysis tools like Wireshark and Packet Tracer for a course.

### Hardware

- **VHDL / Assembly / C** : Used low-level languages to program Altera DE2-115 cards.
- **Arduino** : Workshop and small experiences on the Arduino Uno card.
- **Soldering**
- **3D printing**

### Operating systems

- **Windows** : Daily use.
- **Unix** : Used Ubuntu for Windows and a Kali VM.