

**Germain Le Chapelain**  
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## Software Engineer

### Experience

**UBC, Vancouver, BC** **Software Engineer** Jul 2019 - Dec 2020

Supporting the Manufacturing Automation Laboratory (C#, C++, LabView, Real-Time)

**Critical System Labs Inc., Vancouver, BC** **Software Engineer** Feb 2019 - Jul 2019

Development Support for software verification (C++, Python, SQLite)

**SMI, Inc. Shearman Oaks, CA** **Software Engineer** Apr 2018 - Feb 2019  
(remote, on behalf of **Lanvaux**)

Development of medical imaging software (capture and rendering of SLO and OCT images.)

- Design and implementation of the User Interface (C#, .Net)
- Interfacing with National Instrument data acquisition and encoding platform (C#, .Net)

**Lanvaux, Vancouver, BC** **Founder** Since June 2017

Setting up operations of a business, including information-technology infrastructure.  
Development of the product (C++, DirectX 11, PlayStation 4)

**OSI Maritime Systems, Burnaby, BC** **Senior Software Engineer** Jan 2016 - Jun 2017

Warship Navigation Systems (ECDIS)

- Implementation of Data transmission protocols such as log images or route exchange (C++, UDP/IP)
- Miscellaneous issues fixing, post-crash investigation
- UX design and development (Visio, Win32 API, MFC)
- Documented building procedure (in order to meet compliance with certification standard)

**Capcom Vancouver, Burnaby, BC** **Software Engineer** Jun 2008 - Dec 2015  
(formerly Blue Castle Games)

Tools for the gameplay team

- Requirement gathering and UX design.
- Development and support. (C#, WPF, C++, Python)
- Estimating and planning. (Jira)

On **Deadrising 3** (Xbox One)

- Multi-threaded path finding.
- Improved performance and load times.

On undisclosed projects:

- Shared systems across projects. (perforce branches/merge)
- Animation, physics and gameplay prototyping. (C++)
- Devised a method to incorporate artist-authored animations along with physics simulation.

On **Deadrising 2 : Off The Record** (XBox 360)

- Implemented behaviors for non-playable characters. (C++, GOAP)
- Theme park rides physics. Online synchronization and latency computation. (C++, Havok Physics)
- Optimized memory and CPU average usage and debug peak usages. (Microsoft PIX and xbperf)
- Fix AI and various Gameplay FX for online.

On **Deadrising 2** (XBox 360, PC, PS3)

- Worked on vehicle physics, animation and gameplay. (C++, Havok Physics, Maya, 3DS Max, Motion Builder)
- Devised and implemented the Navigation Mesh and low level AI system from the ground up. (C++, A\*)
- Designed the NavMesh editor and assisted in its implementation as needed. (C#, Winform)

**Pseudo Interactive**, Toronto, ON

**Game Programmer**

Jun 2006 - May 2008

On undisclosed prototypes

- Improved the AI low-level and integrated the system to gameplay. (C++)
- Investigated using gameswf as a UI renderer. (ActionScript)
- Multithreaded pathfinding. (C++, concurrent programming, A\*)
- Worked on a numerical approach for A\* graph partitioning. (Numerical Analysis)

On **Full Auto 2** (PS3)

- Integrated the UI and assisted on game logic. (Anark)

## Education

**BCIT, School of Business**, Vancouver, BC

Sep 2017 - Apr 2018

Self-Employment Program

**Université Pierre et Marie CURIE** (formerly Paris VI) Paris, France

2003 - 2004

DEA: IARFA *Intelligence artificielle et reconnaissance de formes*.  
(Master of Science in Artificial Intelligence and Pattern Recognition.)

**EPITA**, Le Kremlin-Bicêtre, France

1999 - 2004

*Ecole pour l'Informatique et les Technologies avancées,*  
*Spécialisation Sciences Cognitives et Informatique Avancée.*  
(Master of Science in Computer Science, Department of Cognitive Sciences.)

## Language / Interests

**French** Native speaker

**English** Fluent

Hockey (playing), music, pinball, NetBSD.