# CV - Alexandre Mercier-Aubin

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#### **Personal Profile**

Graduate student at McGill University in computer science. My fields of study are computer graphics, algorithm design, and constraint programming.

### Education

2020-2024 PhD in Computer Science - McGill University

*ABD* GPA: 3.90

2019-2020 M. Sc. in Computer Science - Université Laval

Research in constraint programming with Prof. Claude-Guy Quimper

GPA: 3.93

2017-2019 B. Sc. in Computer Science - Université Laval

honors GPA: 3.73

2014-2017 DEC in Computer Science - Cégep Lévis-Lauzon

## Experience

McGill

**Present** teaching assistant and AGSEM delegate

Hold office hours, mark exams, and present various guest lectures for the courses on computer

graphics, computer animations, and introduction to computer systems.

Université Laval

**2020** *teaching assistant* 

Teach the practical aspect (weekly labs) of the advanced programming in C++ course. Mark the exams in the computer graphics course. Support students at the help centre for computer science students (CARÉ) with questions related to 15 different computer science courses.

**2018/05,** Activision, Beenox

**2018/09** game engine developer intern

Design and program the game engine for Call of Duty: Black Ops 4.

Technologies: DirectX, C++, LUA

Contributions: Shaders, LOD formulas, Bugfixes, HUD formulas, cross-platform compatibility,

etc.

2017/01 - Centre de Robotic et Vision Industrielle

2017/08 Intern/Programmer

Machine learning applied to Computer Vision, program robot controllers, and develop a new website for employees.

**2016/05** - Valero, Levis

2016/09 computer science intern

Translate programs from Visual Basic to C#.

2015/05 - Consortium Cooperatif de Services Fédératifs

**2015/09** IT Technician

IT support, creating and managing a database, creating a web site, etc.

### **Prizes and Scholarships**

■ Fonds de recherche du Québec (FRQNT): 2nd and 3rd cycle scholarship

25 000\$ per year, up to 3 years

Natural Sciences and Engineering Research Council of Canada (NSERC) Alliance Grant

15 000

■ Bourse de doctorat Hydro-Québec en Science

15 000\$ per year, up to 2 years

School of Computer Science PhD funding, McGill University

21 000\$ *per year, up to 3 years* 3 000\$ top up from Mechanical Engineering.

■ MITACS accelerate, CRISI

39 000\$

■ Undergraduate Research Fellowship 2019-2020, Université Laval

I declined 6500\$

Association for Constraint Programming, CP2019

450\$

#### Research

All of my publication are listed on my website: alexandremercieraubin.com/Work

### Leadership

- Leader in various undergraduate team projects: Gaudrophone, BigData7027, projet2018-eq4 and ComputerGraphics, etc.
- Team leader in the Valleyfield game creator competition

### **Other Projects**

#### Engines

Adaptive Rigidification Engine A simple computer graphics engine

#### Video games I worked on

Call of Duty: Black Ops 4

Proto-Spyder Assault, 48h Valleyfield game dev contest SansFin, french horror game, Cegep school project

### **Community and Academic Service**

AGSEM Delegate: Act as a delegate for the department of Computer Science at McGill.

V.P. Social at the AGIL: Organize events for the association of graduate student in computer science.

**Volunteer at the ASETIN**: Volunteer work at the student association of computer science. I've been a bartender, receptionist, and helped prepare the student initiations.

Volunteer at Lévis: Receptionist at the Water Festival of Lévis.

**Student volunteer at SCA 2020**: I supported the week-long conference by ensuring the smooth functioning of operations in technical paper sessions and main exhibitions.

### **Referees**

Name	Claude-Guy Quimper	Name	Paul G. Kry
Company	Université Laval	Company	McGill University
Position	Full Professor	Position	Full Professor
Contact	Claude-Guy.Quimper@ift.ulaval.ca	Contact	kry@cs.mcgill.ca