# CV - Alexandre Mercier-Aubin

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Date of Birth December 16, 1996 Website alexandremercieraubin.com

**Nationality** Canadian

### **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

In progress

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

Research in constraint programming with Prof. Claude-Guy Quimper

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

honor profile

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

# **Experience**

McGill

**Present** teaching assistant and AGSEM delegate

Attend 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 of the advanced programming in C++ course. Mark the exams in the computer graphics course. Support students at the help center for computer science students (CARÉ) with questions related to 15 different courses: from beginner programming courses to

advanced algorithm design and operating systems.

2018/05, Activision, Beenox

2018/09 game engine developper intern

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

Technologies: DirectX, C++, LUA Contributions: Shaders, LOD formulas, Bugfixes, HUD formu-

las, cross-platform compatibilities, etc.

2017/01 - Centre de Robotic et Vision Industrielle

**2017/08** *Intern/Programmer* 

Machine learning applied to Computer Vision.

**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 work is 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**

Game engines

One made during college: https://youtu.be/8OPpt3-iIbY

The source code of a more complex engine: https://github.com/AlexandreMercierAubin/ComputerGraphics

Video games I worked on

Call of Duty: Black Ops 4: https://www.callofduty.com/ca/en/blackops4

Proto-Spyder Assault, 48h Valleyfield game dev contest: https://youtu.be/qJjy8b0kuSY

SansFin, french horror game, collegial project: https://youtu.be/s6vr07Nt1IY

### **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 bar-

tender, receptionist and helped prepare the initiations.

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

Student volunteer at SCA 2020: I support 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  |