

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, physics-based animation, algorithm design, and constraint programming.

Education

2020-2024	PhD in Computer Science - McGill University <i>ABD</i> GPA: 3.90
2019-2020	M. Sc. in Computer Science - Université Laval <i>Research in constraint programming with Prof. Claude-Guy Quimper</i> GPA: 3.93
2017-2019	B. Sc. in Computer Science - Université Laval <i>honors</i> GPA: 3.73
2014-2017	DEC in Computer Science - Cégep Lévis-Lauzon

Experience

Present	McGill <i>teaching assistant and AGSEM delegate</i> Hold office hours, mark exams, and present various guest lectures for the courses on computer graphics, computer animations, and introduction to computer systems.
2020	Université Laval <i>teaching assistant</i> 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, 2018/09	Activision, Beenox <i>game engine developer intern</i> 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 - 2017/08	Centre de Robotique et Vision Industrielle <i>Intern/Programmer</i> 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 de ressources et d'expertises coopératives
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, and ComputerGraphics, etc.
- **Team leader in the Valleyfield Game Jam**

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: Delegate of the Computer Science department 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: Support the week-long conference by ensuring the smooth functioning of operations in technical paper sessions and main exhibitions.

Referees

Name	Claude-Guy Quimper
Company	Université Laval
Position	Associate Professor
Contact	Claude-Guy.Quimper@ift.ulaval.ca

Name	Paul G. Kry
Company	McGill
Position	Associate Professor
Contact	kry@cs.mcgill.ca

Name	Sheldon Andrews
Company	École de technologie supérieure
Position	Associate Professor
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Name	David I.W. Levin
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Position	Assistant Professor
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