CV - Alexandre Mercier-Aubin

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Nationality Canadian Website alexandremercieraubin.com

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 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 bar-

tender, 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

PositionAssociate ProfessorContactkry@cs.mcgill.ca

Name Sheldon Andrews

Company École de technologie supérieure

Position Associate Professor

Contact sheldon.andrews@etsmtl.ca

NameDavid I.W. LevinCompanyUniversity of TorontoPositionAssistant ProfessorContactdiwlevin@cs.toronto.edu