

# SIMON DEMEULE

[simondemeule.com](http://simondemeule.com)

## About Me

The intersection of arts and technology are at the core of my practice.

My experience reaches both of these disciplines — on the academic side, in computer science and digital arts, as a researcher or educator — on the applied side, as an independent artist, as an artist working as part of a studio, and as a software developer.

Artificial intelligence, algorithmic techniques related to multimedia and perception are the core of my expertise and the primary thematics explored through my art.

## Education

Diploma	Establishment	Status	Date
Masters in Artificial Intelligence (GPA: 4.2/4.3)	University of Montreal @ Mila	ongoing	2020 ↓ 2022
Bachelors of Computer Science, Computer Applications with Computation Arts (GPA: 3.77/4.3)	Concordia University	graduated	2017 ↓ 2020

# Awards

Title	Establishment	Date
Space Between Exhibition Experiential Design Award	Concordia University	2021
Dean's List Graduation Award	Concordia University	2020
Synchrony 2020 Demoparty Demo Category Winner	<a href="http://synchrony.nyc">synchrony.nyc</a>	2020
Concordia Undergraduate Student Research Award	Concordia University	2019
Focal Points Exhibition Design and Computation Arts Award	Concordia University	2019
Concordia University Golf Classic Entrance Scholarship	Concordia University	2017

# Skills

## Languages

- French
- English

## Research Interests

- Machine Learning
  - Generative models
  - Reinforcement learning
  - Computer vision
- Digital Arts

## Programming Languages

- Python
- C++
- C
- JavaScript
- GLSL/HLSL

## Frameworks & Libraries

- Torch
- TensorFlow
- Numpy
- JAX
- OpenGL/CL/CV/FW
- Node
- Electron
- Three

# Work Experience

Job Description	Employer	Reference	Date
<b>Creative Programmer</b> New media arts and interactive installations	Studio Iregular	<b>Daniel Iregui</b> <a href="mailto:di@iregular.io">di@iregular.io</a>	2021
<b>Lecturer</b> Internet and digital media	University of Montreal	<b>Frédéric Dallaire-Tremblay</b> <a href="mailto:frederic.dallaire-tremblay@umontreal.ca">frederic.dallaire-tremblay@umontreal.ca</a>	2021
<b>Invited Speaker and Mentor</b> AI Art Hackathon	AI Launch Lab	<b>Timothy Pereira</b>	2021
<b>Research Assistant</b> Software developer (C++ backend using Qt)	Concordia University	<b>Christopher Salter</b> <a href="http://chrissalter.com">chrissalter.com</a>	2020
<b>Teaching Assistant</b> Computer graphics (C++ with OpenGL)	Concordia University	<b>Sudhir P. Mudur</b> <a href="mailto:sudhir.mudur@concordia.ca">sudhir.mudur@concordia.ca</a>	2019 ↓ 2020
<b>Undergraduate Researcher</b> Machine learning for sound generation	Concordia University	<b>Denis Pankratov</b> <a href="mailto:denis.pankratov@concordia.ca">denis.pankratov@concordia.ca</a>	2019
<b>Teacher</b> Technology and coding for youth	Les Ateliers Kikicode	<b>Christine Durant</b> <a href="mailto:kikinumerique@gmail.com">kikinumerique@gmail.com</a>	2018 ↓ 2019

# Artistic projects

Description	Date
<b>What Lies Ahead</b>	2019
A contemporary rebirth of the exquisite corps which creates a dialog between its participants and a machine learning algorithm. Through it emerges poems that are at times familiar, strange, rich or absurd.	↓ 2021
Created in collaboration with Pauline Palma, doctorate candidate in experimental psychology specialized in language cognition, through the Convergence Initiative.	
<a href="http://simondemeule.com/WhatLiesAhead/">simondemeule.com/WhatLiesAhead/</a>	
<b>Exhibition → Bridges: A SciArt Exhibition</b>	2021
Presented in collaboration with Concordia University, McGill University and the Convergence Initiative at Mozilla Festival 2021.	
<a href="http://www.convergenceinitiative.org/mf-what-lies-ahead">www.convergenceinitiative.org/mf-what-lies-ahead</a>	
<b>Exhibition → Space Between</b>	2021
<b>Award → Experiential Design Award</b>	
Presented by Concordia University's Design and Computation Arts department.	
<a href="http://space-between.ca/2021/project/what-lies-ahead/">space-between.ca/2021/project/what-lies-ahead/</a>	
<b>Conference → Climate Crisis Hackathon</b>	2021
Presented by AI Launch Lab. I was invited to introduce the artwork, discuss the possibilities brought to the world of arts by artificial intelligence, and mentor a group of participants in created an artistic piece reflecting on the climate crisis using artificial intelligence.	
<a href="http://launchlab.ai">launchlab.ai</a>	
<b>Nakade</b>	2020
Generative audiovisual piece created from photogrammetric scans of New York City.	
Created in collaboration with Victor Ivanov.	
<a href="http://simondemeule.com/Nakade/">simondemeule.com/Nakade/</a>	

<b>Demo → Synchrony NYC / MTL</b>	2020
<b>Award → Demo Category Award</b>	
The piece was created for this digital arts competition in a quick sprint.	
<a href="http://synchrony.nyc/2020/">synchrony.nyc/2020/</a>	
<b>Exhibition → In Finite</b>	2020
Presented by Concordia University's Design and Computation Arts department.	
<a href="http://in-finite.ca/projects/project-nakade">in-finite.ca/projects/project-nakade</a>	
<b>Curvature</b>	2020
Tridimensional rendering engine allowing atypical behaviours of light to be explored. Scenes containing objects that curve light arbitrarily can be created and rendered effectively using a novel, efficient algorithm.	
<a href="http://simondemeule.com/Curvature/">simondemeule.com/Curvature/</a>	
<b>AutonomX</b>	2020
Software allowing the integration of complex dynamic systems, artificial neutrons, and cellular automata into digital art piece using an easy to use visual interface.	
Created through a research-creation project lead by Concordia University's Hexagram research cluster.	
<a href="http://simondemeule.com/AutonomX/">simondemeule.com/AutonomX/</a>	
<b>You Are X</b>	2019
Virtual reality experience exploring the lifecycle of materials. Participants are transported to a minuscule universe where a series of poems are shown, each delving into the existence and environmental cost of the presented materials.	
Created in collaboration with Victor Ivanov, Jennifer Powroznyk and Catherine Weng.	
<a href="http://simondemeule.com/YouAreX/">simondemeule.com/YouAreX/</a>	
<b>Exhibition → In Finite</b>	2020
Presented by Concordia University's Design and Computation Arts department.	
<a href="http://in-finite.ca/projects/project-you-are-x">in-finite.ca/projects/project-you-are-x</a>	

---

**Grainlet**

2020

Realtime audio rendering engine combining notions of granular synthesis, wavelets, phase and frequency modulation.

[simondemeule.com/Grainlet/](http://simondemeule.com/Grainlet/)

---

**In Chrome**

2019

Interactive web piece allowing participants to perform Terry Riley's «In C» composition.

---

**Exhibition → Focal Points**

2019

**Award → Design and Computation Arts Award**

Presented by Concordia University's Design and Computation Arts department.

[www.graduationshow.concordia.ca/2019/projects.html#popup20](http://www.graduationshow.concordia.ca/2019/projects.html#popup20)