Christian M. Denis Location: Montréal, Canada

Website: cmdenis.com

Work: christian.denis@umontreal.ca

EDUCATION Université de Montréal, Montréal

Physics – Biophysics (PhD)

May 2028 CUM GPA: NA/4.30

Université de Montréal, Montréal

Physics (M. Sc.)

May 2025 CUM GPA: 4.30/4.30

McGill University, Montréal

Honours Physics (B. Sc.)

December 2022 CUM GPA: 3.94/4.00

John Abbott College, Ste-Anne de Bellevue

Arts and Sciences (DEC)

May 2019 R-Score: 33.939

SKILLS Languages (spoken and written): French, English

Computer Skills: Solid programming skills in Julia, Python and Mathematica. Knowledgeable with LaTeX, JavaScript, HTML, CSS and Matlab. Competent with programs such as the Office Suite from Microsoft, GIMP, Pages (Apple) and Overleaf. Solid audio-editing and producing skills using Ableton and Reason.

Data Analysis: Usage of Python, Julia and other statistical tools to analyze data **Driver's License:** Class 5 Permit (Canada)

EXPERIENCE

Université de Montréal: Research Assistant

Winter 2023

Working on modelling nonlinear oscillators in presomitic tissue as a research assistant within Paul François' biophysics group at Université de Montréal.

McGill Physics: Undergraduate Summer Intern

Summer 2022

Internship as research assistant in Paul François' theoretical biophysics research group. Studied the topology of the "Arnold Tongue Skeleton" of a set of nonlinear mappings. Also worked on creating a model for an entrained embryonic somite segmentation clock.

McGill Physics: Undergraduate Summer Intern Summer 2021

Internship as research assistant in Paul François' theoretical biophysics research group. Worked on simulations of non-linear oscillators and 2D bifurcation diagrams (mainly Arnold Tongues). This was applied to the modelling of the somite segmentation clock.

Phytronix Technologies: Research Assistant Summer 2020

Internship as research assistant at Phytronix technologies. Worked on characterization of a FAIMS system. Assisted the R&D department in the development of an automated pipetting robot, using Python. Used mass spectrometry to carry out calibration tests.

Math, Physics and Chemistry Tutor

2018 - Now

Summer Jobs 2016 - 2019

2019: Kruger Packaging, student factory worker

2018: Norsk Hydro, student factory worker

2017: McDonald's, Kitchen employee

2016: House maintenance work

PUBLICATIONS	S Unclocklike Oscillators with Frequency Memory for the Entrainm Biological Clocks Denis CM, François P. PRX Life 2, 043008. 2024.		
	Arnold tongue entrainment reveals dynamical principles of the embr segmentation clock Layague Sanchez PG, Mochulska V, Denis CM, Mönke G, T, Tsuchida-Straeten N, Petersen Y, Sonnen KF, François P, Aulehla A. eLife 11:e 2022.	Γomita	
AWARDS AND GRANTS	3rd CIB Symposium: Best Oral Presentation Award Center for Innovative Biomedicine (CIB) Scientific Symposium, Université de Mo	2025 ontréal	
	FRQNT Graduate Scholarship 100 000 \$ — Québec Provincial Graduate Scholarship — PhD program.	2025	
	FRQNT Graduate Scholarship 20 000 \$ — Québec Provincial Graduate Scholarship — Master's program.	2024	
	NSERC Graduate Scholarship 27 000 \$ — Canada Graduate Scholarship — Master's program.	2024	
	BLUE Fellowship 3 000 \$ — McGill University, Building 21.	2024	
	McGill McGameJam 2nd Position. I mainly worked on audio production for our video game during event. Access the game here.	2023 ng the	
	NSERC USRA Research Award 6 000 \$ grant for undergraduate summer research.	2022	
	SURA - Dixie Park Science Undergraduate Research Award 4 000 \$ grant from donors, for undergraduate summer research.	2021	
	Summer Internship Grant From BioTalent Canada 7 000 \$ grant for undergraduate summer research.	2020	
	2nd Position at John Abbott College at CAP exams	2019	
	Certificat du Mérite en histoire pour résultat scolaire exceptionnel	2017	
	Prix Coup de cœur francophone (song lyrics)	2017	

Concours Soliste de Victoriaville (Provincial Music Contest)

Silver - Clarinet (2013), Bronze - Clarinet (2015)

2013-2015

ACTIVITIES AND INTERESTS DISCOGRAPHY	NAS management 2025 - now Media digitization and archiving/organization (HDD, VHS, DVD, Blurays, etc.)		
	Home-Brewing (Beer, Kombucha, Wine, etc.)	2022 - now	
	VP Brewing – McGill Brewing Club	2022	
	TVM Admin Position – Music Composer	2022	
	Executive Member of TVM (Student Television at McGill)	2021 - 2022	
	Participant in the McGill Physics Hackathon 2020: Generative artworks using random walks and weather data as seed (<u>link</u>). 2021: Sound production of a vibrating membrane with thermal fluctuation (<u>link</u>). 2022: Simulation of sharks feeding on a prey (<u>link</u>).		
	Member of the McGill Visual Arts Society	2020 - 2021	
	Organization of Crater Sketching Workshops	2019	
	VP - John Abbott College Space Club August 2018	- May 2019	
	Music recording, composition and production	2015 - now	
	Many Travels 50+ countries (<u>list</u>). A year-long trip around the world (2013-2014).		
	"Continental" (as Chris Mauden) Music album, composed, recorded, produced, mixed, mastered and public	2025 shed. <u>Link</u> .	
	"Boxberg" (as Chris Mauden) Music EP, composed, recorded, produced, mixed, mastered and publishe	2024 d. <u>Link</u> .	
	"Should've Stayed Home Tonight" (as Chris Mauden) 2024 Music EP, composed, recorded, produced, mixed, mastered and published. Link.		
	"Lab Day 23 (feat. Jona Rada & Ali Seleit)" (as Chris Mauder Music single, composed, recorded, produced, mixed, mastered and published).		
	"LMP1" (as Chris Mauden) Music single, composed, recorded, produced, mixed, mastered and publis	2022 shed. <u>Link.</u>	
	"The Sunset Experiment" (as Chris Mauden) Music EP, composed, recorded, produced, mixed, mastered and publishe	2020 d. <u>Link</u> .	
	"T.H.E.C.O.R.O.N.A" (as Chris Mauden)	2020	

"Differential" (as Chris Mauden)
 Music Album, composed, recorded, produced, mixed, mastered and published. Link.
 "Signals" (as Chris Mauden)
 Music single, composed, recorded, produced, mixed, and mastered. Made using samples of the cosmic microwave background noise. Link.

Music EP, composed, recorded, produced, mixed, mastered and published. Link.

FILMOGRAPHY	"Building 21: McGill's Interdisciplinary Idea Lab" (Promo video) Original Music Composer. <u>Link to video.</u>	2024
	"I Worry About My Teeth" (Short) Original Music Composer, Sound Recordist	2024
	"Posing in Bondage" (Short) Original Music Composer Awarded "Best Student Short" at the Cannes Short Film Festival.	2023
	"Reminiscence Of The Fading Memories" (Short) Original Music Composer. <u>Link to video.</u>	2023
	"Just A Kid" (Short Documentary) Original Music Composer. Link to NFB page.	2022
	"Love Triangle" (TVM Short) Original Music Composer	2022
	"A Quirky Indie" (TVM Short) Original Music Composer, Cameraman, Actor	2021
	"Bloom" (Short) Original Music Composer	2020
	"Philippe" (Short Documentary) Original Music Composer. <u>Link to video.</u>	2018
	"ShadowChasers 2017: The Great American Total Solar Eclipse" Original Music Composer	2018
MULTIMEDIA	"Music from modelling the segmentation clock" (Projection) Procedural projections in Touch Designer reactive to music. Music samples fro merical simulations of a model for the entrainment of the segmentation clock. in the context of the BLUE fellowship at Building 21 (McGill University).	
	"Raccoon raider & the temple of thrash" (Video Game) Original Music Composer and sound designer. Video game project done at the Mc Jam 2023 (McGill University). <u>Link to project</u> .	2023 Game-
	"Scène de la mer" (VR) Original Music Composer. VR project done at Building 21 (McGill University). Link to project.	2022