Christian M. Denis **Date of Birth: 1999/10/20**

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Work: christian.denis2@mail.mcgill.ca **Location: Montréal, Canada**
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GOALS

I would like to be part of a stimulating team pursuing physics related goals, and, hopefully, bring my own contribution. I am dedicated and a fast-learner. If given a task, I can work in an autonomous manner as well as in a team. The two things that captivate me the most are: the solving of elegant problems and the execution of creative (possibly artistic) tasks.

EDUCATION

Université de Montréal, Montréal
Physics (M. Sc.)
May 2025 CUM GPA : N/A

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.
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 at McGill University within 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 at McGill University within Paul François' theoretical biophysics research group. Worked on numerical computations for non-linear oscillators and 2D bifurcation diagrams (mainly Arnold Tongues) for variations of the radial isochron clock. 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. Used mass spectrometer to carry out a variety of tests. This involved a lot of Python programming.

Math, Physics and Chemistry Tutor **2018 - Now**

Kruger Packaging: Student Worker **Summer 2019**

Norsk Hydro: Student Worker **Summer 2018**

PUBLICATIONS

Arnold tongue entrainment reveals dynamical principles of the embryonic segmentation clock Layague Sanchez PG, Mochulska V, Mauffette Denis C, Mönke G, Tomita T, Tsuchida-Straeten N, Petersen Y, Sonnen KF, François P, Aulehla A eLife 11:e79575. 2022

AWARDS AND GRANTS

McGill McGameJam **2023**
2nd Position. I mainly worked on audio production for our video game during the event. Access the game here.

NSERC USRA Research Award **2022**
6 000 $ grant for undergraduate summer research.

SURA - Dixie Park Science Undergraduate Research Award **2021**
4 000 $ grant from donors, for undergraduate summer research.

McGill Faculty of Science Scholarship - Dean's Honour List **2020**

Summer Internship Grant From BioTalent Canada **2020**
7 000 $ grant for undergraduate summer research.

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**

Méritas d'excellence au collège Ste-Anne in a variety of classes **2012 - 2017**

Concours Soliste de Victoriaville (Provincial Music Contest) **2015**
Bronze, Clarinet

Concours Soliste de Victoriaville (Provincial Music Contest) **2013**
Silver, Clarinet

ACTIVITIES AND INTERESTS

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 2022 McGill Physics Hackathon **2022**

Participant in the 2021 McGill Physics Hackathon **2021**

Participant in the 2020 McGill Physics Hackathon **2020**

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 and composition **2015 - now**
Recording and composition of soundtracks and of studio albums.

Many Travels More than 40 countries, including a year-long trip around the world (2013-2014). I completed my second year of High-School autonomously.

DISCOGRAPHY

"Lab Day 23 (feat. Jona Rada & Ali Seleit)" (as Chris Mauden) **2023**
Music single, composed, recorded, produced, mixed, mastered and published

"LMP1" (as Chris Mauden) **2022**
Music single, composed, recorded, produced, mixed, mastered and published

"The Sunset Experiment" (as Chris Mauden) **2020**
Music EP, composed, recorded, produced, mixed, mastered and published

"T.H.E.C.O.R.O.N.A" (as Chris Mauden) **2020**
Music EP, composed, recorded, produced, mixed, mastered and published

"Differential" (as Chris Mauden) **2019**
Music Album, composed, recorded, produced, mixed, mastered and published

FILMOGRAPHY

"Posing in Bondage" (Short) **2023**
Original Music Composer
Awarded "Best Student Short" at the Cannes Short Film Festival.

"Reminiscence Of The Fading Memories" (Short) **2023**
Original Music Composer. Link to video.

"Just A Kid" (Short Documentary) **2022**
Original Music Composer. Link to NFB page.

"Love Triangle" (TVM Short) **2022**
Original Music Composer

"A Quirky Indie" (TVM Short) **2021**
Original Music Composer, Cameraman, Actor

"Bloom" (Short) **2020**
Original Music Composer

"Philippe" (Short Documentary) **2018**
Original Music Composer

"ShadowChasers 2017: The Great American Total Solar Eclipse" **2018**
Original Music Composer