

# Jillian Shao

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## EDUCATION

**Master of Science (M.Sc.) - Biology, Marine Ecology**

Expected 2022

Université Laval, Québec City, QC, Canada

**Project:** Using computer modelling to investigate the distribution, dispersal, and movement of *Littorina littorea* and microhabitat selection in intertidal mudflat ecosystems.

**Bachelor of Science (B.Sc.) - Computer Science and Biology**

2014 - 2019

McGill University, Montréal, QC, Canada

**Academic Honours:** J.W. McConnell McGill Scholarship, Queen Elizabeth II Undergraduate Award, Science Lab Without Borders Undergraduate Award, Benzacar and Davidovic Internship Award

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## SKILLS

**Hard Skills:** Scientific Computing, Statistical Modelling, Natural Language Processing, Computer Vision, Data Visualization

**Soft Skills:** Independent Worker, Time Management, Organisation, Adaptability, Explorer

**Coding Languages:** Python, R, SQL, Java

**Natural Languages:** English, Mandarin, French

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## EXPERIENCE

**Rotating Planet Productions - Research and Development** | October 2019 - October 2021

Montréal, QC, Canada

- Researched, fact-checked, and developed ideas and pitches for new wildlife, science, and social science documentaries
- Write press releases, social media posts, publicity announcements, and presentations
- Manage social media and create marketing campaigns

**Tactio Health Group - Data Scientist** | June 2019 - October 2019

Montréal, QC, Canada

- Developed machine learning pipeline for new computer vision projects
- Collected, labelled, and processed images to build database
- Wrote Python code for SQL database integration and data analysis

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## PROJECTS

**Effects of microhabitats on movement and distribution in the marine gastropod *Littorina littorea* - Master's Project**

Investigate the microhabitat preferences of *Littorina littorea* in mudflats, document the pattern of microhabitat use and assess the generality of this pattern over different spatial scales using statistical modelling, Markov chains, random walks, and kernel density estimation.

**Stylistic Text Generation**

Implemented linear interpolation, Markov models, and recurrent neural networks using Python libraries scikit-learn and NLTK to analyse English song lyrics and generate new text stylistically.

**Network analyses versus metapopulation modelling for ocean conservation – Undergraduate Project**

Comparing the results of various graph network analyses algorithms and metapopulation models on networks of pelagic larvae dispersal in the Pacific Ocean for conservation potential.