**Caleb Charpentier**

**12398 Florida Blvd. Lot 2 Livingston, LA 70754 || (225) 313-7982**

[**caleb.charpentier@selu.edu**](mailto:caleb.charpentier@selu.edu%20.)

**EDUCATION**

**Southeastern Louisiana University**, Hammond, LA **Expected Graduation: May 2022**

Bachelor of Science in Biology **GPA**: 3.96 / 4.0

- Concentration: Ecology and Evolutionary Biology Minor in Computer Science

**RELEVANT COURSEWORK**

GBIO 408 – Computational Biology

GBIO 377- Applied Biostatistics

CMPS 161 – Algorithm Design / Implementation

GBIO 312 – Genetics

GBIO 493 – Special Topics (Movement Ecology)

GBIO 493 – Special Topics (Wright Lab Research)

MATH 163 – Applied Calculus

GBIO 405 – Evolutionary Biology (Currently Enrolled)

CMPS 257 – Discrete Structures (Currently Enrolled)

CMPS 280 – Algorithm Design / Implementation II (Currently Enrolled)

**RESEARCH EXPERIENCE**

**Wright Lab, Department of Biological Sciences, Southeastern Louisiana University**

*Undergraduate Research Assistant,* January 2020 – Present

* **Supervisor**: Dr. April Wright
* **Project Description:** Examine the efficacy of fossilized birth-death trees incorporating rate-shifts to accurately model diversification in *Formicidae* with time-heterogeneous parameters. Development of *RevR* package for interaction between RevBayes and the R programming language.
* **Experience Gained:** R and Rev programming experience. Experience interacting with lab members virtually to develop software using GitHub.

**O’Mara Lab, Department of Biological Sciences, Southeastern Louisiana University**

*Research Volunteer*, Summer 2020

* **Supervisor**: Dr. Teague O’Mara
* **Project Description**: Examined accelerometry and GPS data from Greater Noctule Bats (Nyctalus lasiopterus) using the R programming language.
* **Experience Gained**: Exposure to R packages such as *Move HMM* and *dbscan*. Downloaded and cleaned large datasets (10 million+ entries) from MoveBank.

**SOFTWARE**

**RevR** – A package for calling Rev language functions into R ( <https://github.com/Paleantology/RevR> )

**PROGRAMMING LANGUAGES**

R, Python, Java (beginner)

**Leadership and activities**

**Center of Student Excellence,** Southeastern Louisiana University, Hammond, LA

*Science and Math Tutor*, 2019 – 2020

**Math Science Upward Bound,** Southeastern Louisiana University, Hammond, LA

*Teaching Assistant*, Summer 2019

**Biology Undergraduate Society**, Southeastern Louisiana University, Hammond, LA

*Member*, 2018 – 2020

**Ruaha Carnivore Project Kids for Cats Program,** Southeastern Louisiana University, Hammond, LA

*Project Contributor,* 2019

**PRESENTATIONS**

**Louisiana Biomedical Research Network 19th Annual Meeting**

Title: *RevR: An Integration of Bayesian phylogenetics with the R programming environment*

February 13. 2021

**HONORS AND RECOGNITIONS**

**Southeastern’s Most Outstanding Freshman Award**, 2018

**Thirteen Club**, Fall 2020

**President’s List**, Fall 2018 – Present

**SCHOLARSHIPS**

**30+ Priority Scholarship,** Fall 2018 - Present

**TOPS Honors Award,** Fall 2018 - Present

**Hammond Garden Club Scholarship,** 2019-2020

**Burger King McLAMOR Scholarship,** Fall 2018

**AT&T First Generation Scholarship**, Fall 2018