

BENTO GONÇALVES

@ bento.goncalves@stonybrook.edu

(631)512-3415

Stony Brook, NY

github.com/bentocg

EDUCATION

PhD in Ecology and Evolution

Stony Brook University

Aug 2015 – Present

Stony Brook, NY

- Thesis: *Autonomous pack-ice seal census using remote sensing and deep learning.*

Bachelor's Degree in Biology

Federal University of Rio Grande do Sul

Aug 2009 – Aug 2014

Porto Alegre, Brazil

- Capstone project: *Is hearing believing? Patterns of bird voice misidentification in an on-line quiz.*

Exchange Program

University of Kansas

Aug 2012 – Aug 2013

Lawrence, KS

- Major: Ecology and Evolution

EXPERIENCE

Graduate Research Assistant

Lynch lab for Quantitative Ecology

Jan 2016 – Present

Stony Brook, NY

- Conducted field-work in the Antarctic peninsula, counting penguin nests and collecting penguin guano samples
- Developed an automated pipeline to detect pack-ice seals in high-resolution satellite imagery.
- Working on a semantic segmentation pipeline to draw penguin colony boundaries in high-resolution satellite imagery.
- Developing Bayesian models to deal with imperfect detection.

Undergraduate Research Assistant

Ferraz lab for Population Ecology

Sep 2013 – Jul 2015

Porto Alegre, Brazil

- Conducted field work in the Amazon forest using mist nets to band birds and sound recorders to get acoustic data.
- Developed an online quiz to test local experts on their bird song knowledge and pinpoint potential confusion biases.

ADDITIONAL TRAINING

- Microsoft AI for earth summit 📍 Seattle, WA, 2019
- Bayesian modelling for socio-environmental data 📍 SESYNC 2018
- Polar Cyberinfrastructure hackathon 📍 XSEDE 2016
- Polar Geospatial Center spring imagery workshop 📍 PGC 2016
- II workshop on hierarchical modelling for ecologists. 📍 UFRGS 2015
- Over 25 Coursera online courses completed with certificate

HONORS & AWARDS

Microsoft AI for Earth grant

2019

- Grantee on project to survey penguin colonies from satellite imagery with CNNs

IACS Junior Researcher Fellowship

Aug 2017 – Aug 2019

- PhD fellowship providing full stipend and travel funds for outstanding computationally heavy multi-disciplinary thesis.

Sokal Award for Quantitative Ecology

2016

- Award for outstanding quantitative ecology work.

Brazil Science Without Borders Undergraduate Fellowship

Aug 2012 – Aug 2013

- Full 1 year undergraduate study abroad scholarship for promising undergraduates.

PUBLICATIONS

Gonçalves, B.C., and Ferraz, G. 2016. Is hearing believing? Patterns of bird voice misidentification in an online quiz. *Brazilian Ornithology Journal*. 24(3): 217-227

Gonçalves, B.C., Spitzbart, B. and Lynch, H. J. 2019. SealNet: fully-automated seal detection pipeline on sub-meter satellite imagery *In review.*

PRESENTATIONS

Gonçalves, B.C., and Lynch H.J. *Monitoring pack-ice seal populations from space with deep learning. POLAR 2018, Davos, Switzerland*

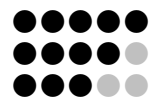
SKILLS

Spoken languages:

Portuguese, English

Spanish

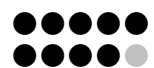
French



Programming languages and packages:

Python, R, PyTorch, Jupyter

ggplot, scipy stack, Unix, L^AT_EX



Experienced technologies:

git version control, GIS software

Anaconda virtual environments

Azure cloud computing

