### HOANG **NGUYEN**

31A Burton, St. John's NL A1E4M1 · (709)-219-1686 hnguyenthe@mun.ca

## **Highlights of qualification**

- Strong research, analytical and problem-solving skills practiced through doing projects.
- Proficient programming skills practiced continuously through doing projects.
- Interpersonal, organizational, and networking skills honed through working in previous positions.

#### Data science projects

#### **Bird classification**

- A bird classification model was built for 524 species. The code structure was designed to test
  various model architectures efficiently, including InceptionV3, MobileNetV1, MobileNetV2, and
  YOLOv8. The MobileNetV1 was chosen to deploy on a web application.
- Technical tools: *TensorFlow, YOLOv8, NumPy, Pandas, Docker, AWS EC2, AWS S3, Docker and GitHub Actions.*
- GitHub: https://github.com/LeoUtas/bird\_classification\_research.git
- Demo: <u>Bird classification (bird-classification524-b310a542793a.herokuapp.com)</u>

#### Mitochondria instance segmentation

- Applying 2 different tools (i.e., Detectron2 and YOLOv8) to segment mitochondria in microscopic images. Detectron2 was chosen to be deployed on a web application.
- Technical tools: Detectron2, YOLOv8, OpenCV, Scikit-image, NumPy, Pandas, AWS EC2, AWS
   S3, Docker and GitHub Actions.
- GitHub: https://github.com/LeoUtas/Mitochondria segmentation research detectron2.git
- Demo: Mitochondria segmentation (mito-app-651cbfda9bde.herokuapp.com)

#### To do today

- A project was built to help track daily to-do lists. Users can add new tasks, check completed tasks, and remove tasks, tracking throughout the user's history.
- Technical tools: ReactJS, D3JS, HTML, CSS, Supabase
- GitHub: https://github.com/LeoUtas/todo\_today.git
- Demo: todo today (todotoday0.netlify.app)

My development portfolio: <u>myPofolio (leoutas.github.io)</u>

My GitHub link: LeoUtas (Hoang Nguyen) (github.com) for more projects

Knowledge Technical tools

Database Python, R

Machine learning ReactJS, D3JS, HTML, CSS
Deep learning AWS EC2, S3, SageMaker

Data visualization Docker, GitHub Actions

Version control

### **Education**

Quantitative fisheries modelling 

Aug. 2024

Marine Institute of Memorial University of Newfoundland

Master of Applied-Science in Marine Environment Jun. 2016 – Dec. 2018

University of Tasmania

Bachelor of Biotechnology Sep. 2002 – Jan. 2007

**NhaTrang University** 

## **Development experience**

I began working with data and statistical modeling at the Fisheries and Marine Institute of Memorial University of Newfoundland since 2020 - present.

In addition to my research, I have engaged in applied data science projects involving machine learning, computer vision, data analytics and web development since 2022 - present.

# Previous work experience

Principal Researcher at Vietnam Seaculture Association, 2019-2020

Academic Tutor at the University of Tasmania, 2017-2018

Fisheries Official at Directorate of Fisheries of Vietnam, 2012-2016

Secretariat at Southeast Asian Fisheries Development Center, 2014-2015

Technical Staff at Institute of Vietnam Fisheries Economics and Planning, 2010-2012

Junior Researcher at Institute of Marine Environment and Resources, 2008-2010

# **Volunteer Experience**

Mentor at Canadian Learning Code (CLC), starting 2023