HOANG **NGUYEN**

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Highlights of Qualifications

- A solid background in quantitative analysis by train.
- Experienced in developing full-stack applications (i.e., mobile and web), computer vision models.
- The vision for my future development is to dive deeper into backend and database engineering

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Highlights of Projects

MediSync AI

With this project, my team won the DO.IT hackathon best-overall prize.

Our solution enables medical professionals with no technical background to easily interact with large medical datasets and help them analyze and visualize patient historical records through natural language processing and vector databases.

- MongoDB, Express JS, React JS, Langchain JS, Open AI

➢ Demonstration video www.youtube.com/watch?v=0E2VGkUw9dQ

Bird classification

A full stack IOS app allows users to select a bird image from their phones. The app can identify bird species and tell fun facts; users can save all the information in the database for future use.

- React Native, Flask, Firebase, and
- TensorFlow, Ultralytics for model analysis and development

➢ GitHub link github.com/LeoUtas/bird_classification_react-native.git

Demonstration video Bird Classification App (youtube.com)

A 2-layer Neural Network from Scratch

An experiment of a 2-layer neural network (NN) using NumPy, providing a straightforward understanding of the mathematics behind NNs

➢ GitHub link github.com/LeoUtas/2-layer_neural_network.git

➢ My development portfolio: leoutas.github.io/react_portfolio/

➢ My GitHub link: github.com/LeoUtas?tab=repositories

Knowledge	Technical tools
• Machine learning	• Python, R
• Full stack development	• Python, Express JS, React JS, React Native (Typescript), HTML, CSS (tailwind), Git, Docker
• Data visualization, Quantitative analysis	• MS Excel, Python, R, React + D3JS
• Cloud, Database	• AWS EC2, S3, Glue, RDS, Supabase, Firebase, MongoDB, Qdrant
• OS	• Linux (AWS EC2, WSL), Windows, MacOS
• Commonly used 3rd party tools	• OpenAI, Langchain, Ultralytics, TensorFlow, Shadcn/ui, Aceternity ui.

Education

Graduate student in Quantitative fisheries modelling ➡ Aug. 2024
Marine Institute of Memorial University of Newfoundland, Canada

Master of Applied Science in Marine Environment with Honors Jun. 2016 – Dec. 2018
University of Tasmania, Australia

Bachelor of Biotechnology Sep. 2002 – Jan. 2007
Nha Trang University, Vietnam

Development experience

- Developing full-stack applications, machine learning, computer vision, data analytics and visualization projects, 2022 – present.
- Programming statistical models for fish stock assessment at Fisheries and Marine Institute of Memorial University of Newfoundland, 2020 - present

Previous professional experience

- Principal Researcher at Vietnam Sea-culture 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