# NHAN NGUYEN

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#### **EDUCATION**

# University of Information Technology, VNUHCM

Sep 2020 - Jan 2024

- Bachelor's Degree (Honors Program), in Computer Science, GPA: 9.0/10 Excellent
- UIT Full-tuition Scholarship.
- UIT Honors Challenge Scholarship in 2 semesters (Prize B and C, respectively).
- · UIT Academic Encouragement Scholarship in 2 semesters.

## **EMPLOYMENT**

# **Applied Science Intern**

#### **VinBrain**

Sep 2023 - Feb 2024

- Leveraged cutting-edge AI techniques to develop and implement solutions for the identification and characterization of Liver Cancer through medical image analysis.
- Developed **Image Registration** algorithms and workflows with multidisciplinary teammates to ensure seamless integration of registered images into medical reports and diagnostic tools.
- Proposed a classification algorithm for 5 different organs for CT Screening problem

## **Al Bootcamp Participant**

## Cinnamon Al

Jun 2023 - Aug 2023

- Acquired expertise in using various technologies and platforms, including FastAPI, Gradio, ReactJS, AWS, Label Studio, DVC, and Docker.
- Developed a **3D motion-capturing system** as the final project, which involved using E<sup>2</sup>FGVI for video inpainting, and FrankMocap for pose estimation and alignment of a mannequin to the scene.

## **PROJECTS**

# **Liver Tumor Recognition and CT Screening**

Sep 2023 - Feb 2024

- **Description**: Focusing on developing a comprehensive solution for liver tumor identification and CT screening. Liver Tumor Recognition consists 5 key stages: Phase Classification, Liver Segmentation, Image Registration, Tumor Segmentation, Tumor Classification.
- **My contributions:** Developing a Classification model for anomaly detection in CT scans of 5 organs: kidney, pancreas, gallbladder, spleen and lung. And maintaining ICP, SPAC and NODEO for Image Registration task.

# **Neural Prediction-based Zero-shot NAS**

Jan 2023 - Sep 2023

- **Description:** Proposing a novel approach for zero-shot NAS using deep learning. Our method employs Fourier sum of sines encoding for convolutional kernels, enabling the construction of a computational feed-forward graph with a structure similar to the architecture under evaluation. Create the first neural zero-shot NAS procedure that found the SoTA network under 1 million parameters for CIFAR-10.
- My contribution: Contribute ideas to improve the model and run the experiments.

#### **Event Retrieval from Visual Data**

Sep 2022 - Dec 2022

- **Description:** Utilizing the CLIP model for keyframe and text information extraction, combined with the SCANN model/ ElasticSearch for nearest neighbor search, secured the **Second Prize at the Final Round** of Al Challenge HCM 2022 for video segmentation from 300 hours of news.
- My contribution: Building a web interface that enables keyframe searches based on text queries. By using the Whisper model (Automatic Speech Recognition) and Google Vision API (Optical Character Recognition), I can leverage information from speech, and scene text to improve system performance.

## **HONORS & AWARDS**

Odon Vallet Scholarship	2019
Bronze Medal of Vietnam Mathematical Olympiad	2020
Consolation Prize in the Ho Chi Minh Al Challenge	2021
Silver Medal of Vietnam Mathematical Olympiad for University Student, in Algebra, group A	2022
Consolation Prize of Vietnam Mathematical Olympiad for University Student, in Calculus, group A	2022
Second Prize in the Ho Chi Minh Al Challenge	2022
Bronze Medal of Vietnam Mathematical Olympiad for University Student, in Algebra, group A	2023
Bronze Medal of Vietnam Mathematical Olympiad for University Student, in Calculus, group A	2023

#### **LANGUAGES**

Languages: Vietnamese (Native Proficiency), English (IELTS 6.0)