# Vinh Nguyen

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## **EDUCATION**

## • Ecole Polytechnique

Palaiseau, France

Bachelor of Science - Double degree in Mathematics and Computer Science

Sep 2019 - Jun 2022 (expected)

#### EXPERIENCE

### • VinAI Research Lab

Hanoi, Vietnam

AI Engineer Intern

May 2019 - Aug 2019

- Collected raw data from different online sources to form a dataset called PlasticVNOI, which consisted of over 1000 images containing plastic bags. Most of the images were then annotated manually, while the others were machine-annotated and human-verified.
- Integrated the **PlasticVNOI dataset** with the well-known **PASCAL VOC dataset**, and eventually used the combined data to develop an accurate **Faster RCNN** model to detect plastic bags on many polluted streets in Vietnam.
- Utilizing: Tensorflow, OpenCV, Keras.
- $\circ \ \ \mathbf{Source:} \ \ \mathtt{https://github.com/ngthanhvinh/plasticbag-faster-rcnn.}$

## • HUS High School for Gifted Students

Hanoi, Vietnam

Informatics Tutor

Jan 2017 - Jan 2019

• Instructed high school students to prepare for the Vietnam National Olympiad in Informatics, with the content covering from the C/C++ programming language to algorithms and data structures.

## AWARDS AND HONORS

• Top 5, Vietnam Team Selection Contest in Informatics	May 2018
• Gold Medal, Singapore National Olympiad in Informatics	Mar 2018
• First Prize, Vietnam National Olympiad in Informatics	Jan 2018
• Third Prize, Vietnam National Olympiad in Informatics	Jan 2017

#### Projects

#### • React 2D Gameboard, HSGS Hackathon 2018

- Led a team of 4 students to design the online graphical interface for several 2D math puzzles with ReactJS.
- Source: https://github.com/ngthanhvinh/hsgs-hackathon-18.

#### • SDL Tetris

- A well-designed console game based on the traditional Tetris game with some modified rules.
- Implemented all logical "back-end" functions (such as scoring, rotations and left/right/down movements) for the game.
- $\circ \ \, \mathbf{Source:} \ \, \mathtt{https://github.com/zimportant/SDL\_Tetris}.$

## • ObjTest

- A web app which is able to classify the object on images.
- Utilizing: Flask back-end, React front-end, Tensorflow, VGG16 pre-trained model.
- Source: https://github.com/ngthanhvinh/ObjTest.

## PROGRAMMING SKILLS

- Languages: C/C++, Python, JavaScript, TypeScript.
- Technologies: Git, React, NodeJS, Flask, Tensorflow, OpenCV, Keras.