

# Vinh Nguyen

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## EDUCATION

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- **Ecole Polytechnique**

*Bachelor of Science - Double degree in Mathematics and Computer Science*

Palaiseau, France

Sep 2019 – Jun 2022 (expected)

## EXPERIENCE

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- **VinAI Research Lab**

*AI Engineer Intern*

Hanoi, Vietnam

May 2019 - Aug 2019

- Collected raw data from different online sources to create **PlasticVNOI**, a dataset consisting 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.
- Languages - Technologies: **Python, Tensorflow, OpenCV, Keras**.
- Source: <https://github.com/ngthanhvinh/plasticbag-faster-rcnn>.

- **HUS High School for Gifted Students**

*Teaching Assistant*

Hanoi, Vietnam

Jan 2017 - Jan 2019

- Taught **C/C++ programming language, algorithms and data structures** to a group of 10 students preparing for the Vietnam National Olympiad in Informatics.

## ACHIVEMENTS AND AWARDS

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- **Gold Medal**, Vietnam National Olympiad in Informatics

Jan 2018

- Competed individually to solve 4 algorithmic problems in **C++** during 3 hours. The competition is officially organized by Vietnam Ministry of Education and Training, in which over 10,000 high school students across Vietnam participated.

- **Top 5**, Vietnam Team Selection Contest in Informatics

May 2018

- Competed with other 31 best students selected from the Vietnam National Olympiad in Informatics. The contest consisted of 3 five-hour rounds, including the **Asia-Pacific Informatics Olympiad**.

- **Gold Medal**, Singapore National Olympiad in Informatics

Mar 2018

- Invited to Singapore to compete with the best contestants in Southeast Asia, solving algorithmic problems in 5 hours. Won the first place with a perfect score.

- **Master - rating 2248**, Codeforces

- Top 1% on [Codeforces](https://codeforces.com/) - a competitive programming website with over 60,000 active users.

## PROJECTS

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- **React 2D Gameboard**, HSGS Hackathon 2018

- Led a team of 4 students to design the online graphical interface for several 2D math puzzles with **React**.
- 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) in **C/C++**.
- Source: <https://github.com/zimportant/SDL.Tetris>.

- **ObjTest**

- A web app for object classification, utilizing the **VGG16 pretrained model**.
- Languages - Technologies: **Python, JavaScript, NodeJS, Flask, React, HTML, CSS, Tensorflow, Keras**.
- Source: <https://github.com/ngthanhvinh/ObjTest>.