# Anh 'Alex' Mac

anhmac@g.ucla.edu +1 424-502-9168

### Education

Bachelor's in Computer Science

Los Angeles, USA

University of California, Los Angeles

Sep 2022-Expected Jul 2026 Warsaw, Poland

**IB Diploma Program** 

American School of Warsaw

Aug 2020-Jul 2022

Achieved Grade: 44/45

HL Subjects: Math Analysis & Approaches, Physics, Economics, Computer Science

## Work Experience

University of Warsaw

Warsaw, Poland

Researcher

Sep 2019-Jun 2022

- Participated in graduate-level computer-vision research, presented findings to postdoctoral researchers and faculty.
- Facilitated capstone project and published "Rotation Variance in Graph Convolutional Networks". Awarded the Professor Zdzisław Pawlak Best Paper Award at the 16th Conference on Computer Science and Intelligent Systems.

### **Hack+Policy Foundation**

Warsaw, Poland

Software Development Intern

Jun 2021-Oct 2021

- Developed submission and judging platforms for Merge-X-India event with 100+ participants. Conceived and implemented custom Capture-The-Flag challenge.
- Spearheaded with a team of 6 in developing novel hackathon web platform.

### Viettel Cyberspace Center

Hanoi, Vietnam

Al Research Intern

Mar 2021-Aug 2021

- Led team of 3 in developing face mask detection system. Implemented in major hospitals and government offices. Built using C++, ONNX, and TensorRT.
- Optimized and delivered computer-vision based fire detection and alarm system for urban environments.
- Participated in infrastructure development for OCR-based search engine

# Notable Research Projects and Presentations

## Rotation Variance in Graph Convolutional Networks

Sep 2021

Conducted research project regarding grid-based object localization using graph convolutional networks built with PyTorch. Published and presented in conference, FedCSIS. Publication available on IEEE. Awarded the Best Paper Award.

### Wave Function Collapse Coloring

Aug 2021

Conducted and led research project regarding heuristic graph coloring using niche Wave Function algorithm. Pre-print available on arXiv.

#### Object Detection in Road Damage Localization

Dec 2020

Led an investigation into road damage detection built using Tensorflow. Presented results to faculty and post-doctorate researchers at the University of Warsaw.

#### Low Resolution Logo Detection

Mar 2020

Participated in a research project built upon PyTorch regarding low resolution logo detection. Presented the results of the project in a seminar for industry and academic researchers. Project was then adopted at a pharmaceutical distribution company.

### **Artificial Intelligence in Web Environments**

Nov 2019

Presented a seminar on state-of-the-art applications of AI on the web at the 4th RSVP in the University of Warsaw. Implemented computer-vision models using Tensorflow.js and hosted Heroku.

### Skills

Python (PyTorch, Tensorflow); C++; Javascript (React, Vue, Expo Go, Node.js); Machine Learning Frameworks (ONNX, TensorRT); Git