# Yuhan Liu

### UCLA Computer Science & Engineering and Mathematics Major

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#### **EXPERIENCE**

Researcher - PARISlab at UCLA

Jan, 2019 - present

aithub.com/vliu1021/Sorption-Modeling

Language: Python, C++ / Technology: Keras, TensorFlow

- Developing & researching ways to tackle inverse design problems related to porous materials
  - Optimized preexisting sorption modeling simulation code (~80-100x speedup)
  - Developed, benchmarked, and implemented various deep learning techniques for training generative models

#### Project Lead/iOS Developer - Nova, Tech for Good

Oct. 2019 - present

Language: Swift / Technology: iOS SDK, SwiftUI, Git/Version Control

- Streamline other nonprofit organizations' work by implementing technological solutions for their problems
  - Designed and developed an iOS app for The Giving Spirit that allows their volunteers to better coordinate donations and kit distributions
    - Worked with Swift/SwiftUI and iOS design, MVC, Storyboards, auto layout, MapKit, CoreLocation, Firebase
  - Collaborated with designers and other coders; delegated work

#### **EDUCATION**

## University of California, Los Angeles

Sept, 2018 - Jun, 2022

Bachelor of Science in Computer Science & Engineering

Bachelor of Science in Mathematics

GPA: 3.848

Relevant Computer Science Coursework:

Introduction to Formal Languages and Automata Theory, Systems and Signals, Digital Design Lab, Computer Systems Architecture, Machine Learning, Computer Network Fundamentals, Artificial Intelligence,

Programming Languages, Operating Systems, Algorithms and Data Structures

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Relevant Mathematics Coursework:

Linear Algebra, Real/Complex Analysis, Systems of Differential Equations, Probability Theory

#### **PROJECTS**

#### **Imagepedia**

github.com/yliu1021/Imagepedia Language: Python, JavaScript, HTML

Technology: Flask, Google Vision API

- Classify photos and detect features to organize library
- AlHacks winning entry

#### Discord bot

## github.com/yliu1021/LIHacks

Language: Java

Technology: Wit, Yelp, Wunderground

- NLP to help users make plans
- LIHacks winning entry

#### Hand Gesture Recognition

github.com/yliu1021/HandGesture

Language: Python

Technology: TensorFlow, Numpy, Data Science

- Hand gesture recognition
- Hack on the Hill winning entry

#### LANGUAGES

Python	6 years	••••
C	6 years	••••
C++	5 years	••••
Swift	5 years	••••
Objective-C	4 years	•••00
Java	2 years	••000
JavaScript	1 year	•0000
HTML	1 year	•0000

## **FRAMEWORKS**

iOS SDK	7 years
TensorFlow/Keras	4 years
Django/WebDev	1 year

#### AWARDS & MISC

Putnam Score 21		
Top 478.5 out of 3,428	2019	

## **USA Computing Olympiad**

Gold Division 2017, 2018

# **USA Physics Olympiad**

Honorable Mention 2018

#### **USA Physics Bowl**

1st regional (NY) / 66th global 2018

## **USA Chemistry Olympiad**

Nationals Qualifier 2017

#### **UCLA ICPC Team Member**

competitive coding team 2019