

# CHRISTOPHER THAI

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## ► CONTACT

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## ► EDUCATION

### UCLA

#### B.S. Computer Science and Engineering

Expected June 2019

Relevant Coursework: Logic Design of Digital Systems, Software Construction Laboratory, Intro to Computer Graphics, Operating Systems Principles, Intro to Algorithms and Complexity, Computer Architecture, Programming Languages, Computer Network Fundamentals, Intro to Machine Learning

## ► SKILLS

**MAIN LANGUAGES:** C, C++, Python

**GAME MODDING/DEVELOPMENT:** C#, Unity, Valve Hammer Editor

**WEB DEVELOPMENT:** HTML, CSS, Javascript (WebGL, Node, React), Firebase

**MACHINE LEARNING:** Tensorflow, Keras, scikit-learn

## ► ACTIVITIES

### UCLA Game Music Ensemble,

Chamber Music Director  
Sept. 2015 to Current

- Student-led orchestra/choir that performs video game soundtracks
- Organizes different repertoire for chamber musicians to perform
- Works with outside organizations to help GME musicians perform outside of GME-sanctioned concerts at UCLA

### National Society of Collegiate Scholars (NSCS)

Sept. 2016 to Current

### UCLA Club Track and Field

Apr. 2016 to Current

## ► PROJECTS

### Starcraft II AI

- A convolutional neural network that learns to play the real-time strategy game 'Starcraft II'
- Implemented using OpenCV, Keras, and python-sc2 library
- Achieves approximately 60% winrate against Hard bots, 80% winrate against Medium bots
- Maps in-game information gathered from python-sc2 to an image using OpenCV, which is then fed into a convolutional neural network using Keras

### cat-bot: a Discord chat bot

- A chat bot made for my friend's Discord cat-themed chat server built with Node.js and the Discord API
- Performs numerous commands, such as posting random cat pictures, querying the Oxford dictionary API, and storing Discord username and Steam/Blizzard username pairings using an SQLite database
- Currently hosted on the Heroku cloud platform
- More commands to be added as an ongoing project

### GravFest

- 2-D platforming game where the character can manipulate the direction of gravity to navigate obstacles
- Used open-source art assets to construct a 2-D environment in Unity
- Scripted key game components such as player movement, gravity manipulation, UI and health, and environment interaction using C#

## ► EMPLOYMENT

### iD Tech Camps

Instructor

Stanford, CA

June 2017 to Aug. 2018

- Taught and supervised weekly tech courses with up to eight high-school age students as part of a summer camp
- Courses taught include Machine Learning, Cryptography and Cybersecurity, 3-D Level Design with TF2, C++ Coding, Game Programming with Unity and C#
- Examples of class projects and activities across all classes taught include a MNIST image classifier, Linux command line scavenger hunt, password hashing implementation, SFML graphics, and a shoot-em-up game

### Galileo Learning

Assistant Instructor

Sunnyvale, CA

June 2016 to Aug. 2016

- Helped teach classes such as Video Game Design, Website Design, and Minecraft Mod Design at a summer camp for middle school students.
- Software and tools used to teach include Clickteam Fusion, Wix, Eclipse, and the Minecraft Forge API