

■ andy.thai9@gmail.com | 🛘 408-665-2078 | 🗣 Irvine, CA | 🗞 andyth.ai | 🗞 linkedin.com/in/anthai

Research Interests: Computer graphics, machine learning, geometric processing, image processing, vision

### **Education**

#### University of California, Irvine

Irvine, CA

Ph.D. IN COMPUTER SCIENCE, SPECIALIZATION: COMPUTER GRAPHICS

Sep 2018 - Present

Advisor: Gopi Meenakshisundaram

#### University of California, San Diego

La Jolla, CA

B.S. IN MATHEMATICS-COMPUTER SCIENCE

B.S. IN COGNITIVE SCIENCE WITH SPECIALIZATION IN HUMAN-COMPUTER INTERACTION

Sep 2014 - Jun 2018

# Research Experience

#### Interactive Graphics & Visualization Laboratory, UC Irvine

Irvine, CA

PH D STUDENT

Sep 2018 - Present

- · Reviewing deep learning techniques in geometry processing for point cloud reconstruction research
- · Manages and leads urology processing project to create aesthetic renderings of volumetric CT data and utilizes deep learning techniques for semantic segmentation of abdominal organs

#### Chiba Neuroscience Laboratory, UC San Diego Department of Cognitive Science

La Jolla, CA

RESEARCH ASSISTANT

Dec 2015 - Sep 2018

- Integrated 3DTracker-FAB, cameras, IMUs, neural recordings with Python OpenCV for 4K, 30fps, rat behavioral classification, collection
- Developed/maintained ROS C++ modules, Python behavioral code for interactive educational robot, deployed in several classrooms
- · Collated data and wrote software tools using Python's OpenCV to assist in analysis for classification of rodent facial expression data
- Managed and supervised undergraduate / high school intern research projects in pro-social rat behavior and health data collection

### Work Experience \_\_\_\_\_

#### Diverse Educational Community and Doctoral Experience, UC Irvine

Irvine, CA

DECADE PLUS LEADERSHIP COACH

Feb 2019 - present

· Mentors and coaches first-gen, low-income, under-represented undergraduate students while managing small team of peer mentors

#### **Retirement Association, UC San Diego**

La Jolla, CA Sep 2015 - Jul 2016

OFFICE & SUPPLIES MANAGER

- · Assisted in user database management, event planning, social media presence, and flyer design
- · Reviewed accounting, supply, banking, and financial records for 2150+ association members
- · Supervised and trained interns and new hires

#### Chancellor's Scholars Alliance, UC San Diego

La Jolla, CA

ACTING CO-PRESIDENT, CO-VICE PRESIDENT, WEBMASTER & COMMUNICATIONS CHAIR

Oct 2014 - Sep 2018

· Oversaw event planning, peer-mentoring systems focused on outreach for 200+ underrepresented first-generation students

# Other Projects.

Cat Defender VR

Oculus Rift API, C++

ANDYTH.AI/DEFEND-CAT-VR

May 2018 - Jun 2018

Oculus VR project that utilizes networking and collision boxes for multiplayer gameplay where two players defend a cat from monsters

Brain-o-War ANDYTH.AI/BRAINOWAR C++, OpenGL, GLSL, NeuroSky Feb 2017 - Mar 2017

Self-made C++ OpenGL rendering engine with an implemented BCI 3D tug-of-war game that uses player brain waves as control inputs

**Project Titanic** 

C++, OpenGL, GLSL

ANDYTH.AI/PROJECT-TITANIC

May 2017 - Jun 2017

Ship simulation with custom-made engine supporting water, particle FX, SFX, collision detection, and procedural terrain generation

#### Skills

**Programming:** Python, C++, C, MATLAB, Java, HTML, CSS, Javascript, LATEX, Bash shell scripting Software Tools: OpenCV, scikit-learn, Keras, Tensorflow, VTK, OpenGL, GLSL, Oculus VR, Unix/Linux

Languages: English (native speaker), Vietnamese (professional working proficiency)

# **Teaching**

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TA	Brain-Computing Interfaces	Jun 2019	Mentoring Excellence Program
TA	Computational Linear Algebra	Feb 2018	UCI Dean's Award Fellowship
TA	Programming with Software Libraries	Jul 2017	UCSD Student Foundation Scholarship
TA	Intermediate Programming in Python	2015	Darcy & Robert Bingham Scholarship
Reader	Programming in C++ as a Second Language	Sep 2014	UCSD Chancellor's Scholarship