

## **Phu Tsoi**

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### **Education:**

UC San Diego 2020 - 2024, 3<sup>rd</sup> Year Math – Computer Science Major, GPA: 3.48

- **Coursework:** OOP, Data Structures, Systems Programming, Numerical Analysis, Partial Differential Equations, Complex Analysis, Real Analysis.

### **Previous Experiences:**

#### **Math Tutor and SI Leader – UC San Diego:**

- Worked as a Math tutor facilitating Calculus and Linear Algebra knowledge and providing help with homework for students.
- Experienced and comfortable with providing, explaining, and presenting information and solutions to problems.

### **Projects:**

#### **Convolutional Neural Network for traffic classification:**

- Implemented and tested different CNN structures using Keras to detect real-time busy traffic in Ho Chi Minh City by collecting data from a series of traffic cameras around the city.
- Implemented web scraping procedure to collect more than 2000 images for training from traffic cameras. This procedure is then used to collect real time images from cameras for the CNN model.
- Implemented simple Django website to provide UI for users.

#### **YOLOv3 object segmentation model to segment roads in New York City:**

- Implemented flood-fill procedure to cleanse images and color them to use for training.
- Used Docker to deploy UI interface onto AWS server for users.

### **Skills:**

**Languages:** C++, C, Java, JS, Python, HTML, CSS, ARM Assembly.

**Frameworks:** Tensorflow, Keras, Docker, Django, React.

**Knowledge:** Comfortable with Fourier Transforms, PDEs, and Computational Linear Algebra.