# THOMAS HUANG

## CONTACT

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#### **EDUCATION**

## Purdue University - West Lafayette, Indiana

August 2015 - August 2019

B.S. in Computer Science with Minor in Mathematics

Relevant Coursework: Real Analysis; Advanced Linear Algebra; Analysis of Algorithms; Relational Databases; Discrete Mathematics; Web Information Search; Systems Programming; Data Mining; Artificial Intelligence

#### **EXPERIENCE**

#### Artificial Intelligence Fellow

June 2019 - Present

Insight Data Science - San Francisco, CA

- Developed a state-of-the-art model for dewarping poorly scanned document images into flat, readable images by using novel deep learning techniques such as pix2pixHD, and DocUNet
- Implemented pipeline in AWS (S3 and EC2)
- Worked alongside Docucharm, a YC-backed startup, to develop model as a filter for dirty data

#### C++ Software Engineering Intern

May 2018 - December 2018

Genesys - Indianapolis, IN

- Developed a C++ library for Google Dialogflow to allow customer support centers to interact with Dialogflow bots built into a Genesys call center infrastructure
- Developed a REST API for an internal text-to-speech engine in C++ to handle ssml or plaintext requests for .wav file speech responses, which was deployed into production after passing TravisCI tests
- Developed integration tests for C++ in Boost and handled version control through Perforce

## **Machine Learning Intern**

June 2017 - August 2017

Data Prophet - Cape Town, South Africa

- Individually designed and applied Tensorflow's object detection API over client video data in Python.
- Built image and text web scraper using Scrapy (Python scraping tool)
- Tested and trained software using Google Cloud Platform and AWS
- Project delivery resulted in 1yr contract with major corporate client

### **PROJECTS**

fulgrum December 2018

A web application which analyzes publically accessible reviews to provide small businesses insights on review data. The application can tell a business what people tend to praise and criticize in reviews, rating trends, comparisons to competitor businesses, and more. I implemented all of the frontend, parts of a Node is server, and integrated the Google Cloud Platform - NLP API.

slither.io April 2019

Slither.io is a multiplayer snake game environment for testing reinforcement learning algorithms. I implemented baseline algorithms to compare to advanced reinforcement learning approaches, specifically Q-learning and Policy Gradient. Using RL, I was able to significantly outperform baseline heuristics by 200% at a minimum.

weatherly March 2018

A web application which uses the DarkSky and Google Maps API to display weather information about your local area. Users can create accounts and login to see their weather information. Built in Javascript with Node.js and MongoDB.

## **SKILLS**

Languages: Python, C++, Java, SQL, Git

Libraries/Frameworks: Node.js, MongoDB, Tensorflow, Keras, spaCy, scikit-learn