# Sitao (Charlie) Tong

Tel: (+1) 380-710-3148 | Email: tong.408@osu.edu | Website: charlietong.netlify.app

## EDUCATION

**The Ohio State University,** Columbus, Ohio **Aug 2021- Dec 2023(Expected)**
B.S in Computer Science and Engineering (Transfer); GPA 3.88/4.0
**Zhejiang University of Technology,** Hangzhou, China **Sep 2018 - Aug 2021**
B.S in Software Engineering; GPA 86/100

## SKILL & Courses

*Courses: Operating System, Computer Networks, AI, Algorithms, Data Structure …Full Transcript Link*

- Programming Languages: Java, Python, C++/C/C#, Ruby, Rust, SQL, MatLab, JavaScript
- Frameworks/Platform: React, SpringMVC, Pytorch, Numpy, Rails, Git, Maven, Linux, AWS

## EXPERIENCE

**Virtual Hybrid Inc. - Pawstopia, a pet social network platform** Chino Hills, California
***Full Stack Developer Intern*** Jun 2023 – Aug 2023(Expected)

- Engineered a news feed backend utilizing **C# .NET**, deployed on the **Azure**. Employed **PostgreSQL** as the database and embraced **Docker** for enhanced database portability and maintenance.
- Designed and implemented a **Restful** API for seamless communication between front and the server.
- Utilized **Redux** along with **React hooks** to enhance performance in the front-end development to streamline API communication, resulting in 3x improvement in page loading time.

**ZJUT Computer Vision Lab - FG Sketch Based Image Retrival System with ViT** Hangzhou, China
***Research Assistant*** (Instructor: Cong Bai) [Github] Nov 2020 - Jun 2021

- Improved the algorithm by applying **Vision Transformer**(ViT) layer to the branches of **Siamese Neural Network**. Implemented and trained the enhanced model using **PyTorch** on GPU of cloud server. The top1 accurracy improved by 4% compared to the conventional approach.
- Built an AI web app enabling users to sketch and retrieve matched shoe products based on **Flask.**

## PROJECTS

**ML-based Review Sentiment Prediction** [Github] | Python Aug 2022 - Dec 2022

- Developed a machine learning prediction system using **Numpy** and **Sklearn**.
- Transformed data into a Bag of Words(**BOW**) representation; Applied tf-idf ranking to clean features. Improve the training time by 10%. Evaluated its running time and accuracy using **Matplotlib**.

**Space Invader Game** [Github] | C Jan 2022 - Mar 2022

- Developed the Space Invader game with simulation timer and physical bouncing and hitting effects.
- Utilized a linked list with garbage collection and reference counting to efficiently store enemy information, mitigating a 25% risk of memory leakage in cases of unsuccessful memory allocation.

**Location Based Campus Event System** [Github] | Java + Spring Jan 2021 - Feb 2021
***(Group of 4) Leader | Database Design, Backend;***

- Created a web application for campus activity management, enabling location based search, check-in/out, comment, information upload, and online approval.
- Implemented the web based on **SSM** (Spring+SpringMVC+Mybatis); Deployed the **MySql** database on **AWS**; stored image data in **AliyunOSS**. Group cooperate and control version with **GitHub**.

## HONOR & PRIZE

- *CSE 2231 Teaching Assistant*
- *Dean's List (4/4 Semesters)*
- *2016 First Tech Challenge, Leader of Champion team in China*