

Tony Xia

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Technical Skills



Python, C++, Java, JS, C, R, Swift
Git, Docker, Linux CLI, Google Cloud

PyTorch, TensorFlow, Sklearn
Pandas, NumPy, Selenium, AMT

Projects



Coding Question Classifier | [PyTorch](#), [Transformer](#), [NumPy](#), [Selenium](#), [Pandas](#)

Jan—July 2021

- Conceptualized the possibility of **predicting coding problem type** using NNs
- Explored 6 different **deep non-linear classifiers** to improve the result
- Collected and cleaned 10000+ problems for training
- Achieved a **30% improvement** on the random baseline

Car Speed Predictor | [PyTorch](#), [NumPy](#), [OpenCV](#)

Jan—Mar 2020

- Replicated the top solution to the Comma AI car speed prediction challenge
- Explored **semi-supervised learning** as a potential solution
- Improved model performance by incorporating **optic flow** in the training

Joe's Kitchen | [Google Vision API](#), [Spoonacular API](#), [React Native](#)

May 2021

- Created a recipe app that suggests recipes based on an image of user's fridge
- Constructed a convenient method for users to find healthy food recipes

Is This Orion | [TensorFlow](#), [Keras](#), [NumPy](#)

May—June 2019

- Utilized Python TensorFlow to create a **ConvNet** for star image classification
- Explored other possibilities on how **machine learning** could be **applied to astronomy**
- Augmented the dataset with and doubled the number of data points

Experiences



Research Assistant | [Center for Vision, Cognition, Learning, and Autonomy](#)

Jun 2021—Present

- Collaborating with Ph.D. students to **create in demand machine learning datasets**
- Collected and cleaned datasets using tools such as Pandas and AMT
- Designed and implemented original architectures for the **Visual-QA** tasks

Contestant | [UCLA ICPC Team](#)

Dec 2020—March 2021

- Achieved **top 8** out of 100+ teams in the SoCal ICPC regional contest
- Honed strong **algorithmic thinking** and **problem-solving** skills through training
- Solved challenging problems under time constraints on a team of 3

Officer | [ACM ICPC at UCLA](#)

Mar 2020—Present

- Diversifying the CS community at UCLA through **organizing weekly workshops**
- Planned and implemented a coding contest with hundreds of participants

Education



University of California, Los Angeles

Sept 2019—June 2023

Computer Science & Applied Mathematics, GPA: 3.91

Intro to Machine Learning

Intro to Computer Vision

Statistical Models, Regression

Data Analysis and Experiment Design