Chris Y. Liu

University of California Santa Cruz
1156 High Street, Santa Cruz, CA 95064
yliu298ucsc.edu
https://chrisliu298.dev

RESEARCH INTERESTS

An an undergraduate student, my current research interests lie in machine learning, natural language processing, and meta-learning. I work on approaches that emphasize the agent's generalization ability and allow agents to learn multiple tasks with minimal examples efficiently.

EDUCATION

University of California, Santa Cruz 2017 - 2021
B.S. in Computer Science
Cumulative GPA: 3.76 Last quarter: 4.0

RESEARCH EXPERIENCE

Professor Jeffrey Flanigan's NLP Group April 2020 - present
Currently working closely with Professor Jeffrey Flanigan on a research project about machine learning theory.

Professor Xin Wang's Lab Expected September 2020

WORK EXPERIENCE

Tutor of CSE142 Machine Learning Expected September 2020
Assisting students with:

- understanding course concepts; developing study strategies and methods for independent work;
- developing writing and critical thinking skills through reviewing;
- commenting on and discussing student work including homework and papers;
- preparing for exams.

HORNORS AND AWARDS

Dean's Honors, University of California, Santa Cruz
Fall (2017, 2018, 2019), Winter (2020), Spring (2018, 2020), Summer (2020)

PROJECTS

Fine-Tuning GPT-2 to Generate Research Paper Abstracts

- Capable of generating abstracts given paper titles.
- Fine-tuned the model using all research paper titles and abstracts under cs.AI, cs.LG, cs.CL, and cs.CV on arXiv.
- The winner project of the image/text generation competition of CSE142 Machine Learning at UC Santa Cruz.
- Currently hosted by Hugging Face at `https://huggingface.co/chrisliu298/arxiv_ai_gpt2`.

Text Augmentation Using Pre-Trained Transformers With Reinforcement Learning

- Used a GPT-2 (345M) as a text generator and fine-tuned it using proximal policy optimization along with a distilled RoBERTa model as a classifier on the IMDb Large Movie Review Dataset.

- A software engineering project and, at the same time, an informal research project for my software engineering course.

Sentiment Analysis With Transformers

- Fine-tuned a RoBERTa (355M) model using the IMDb dataset.
- The winner project of the sentiment analysis competition of CSE142 Machine Learning at UC Santa Cruz.