Catherine Yu- Chi Chen
(347) 673-4866 | cyc2152@stanford.edu

EDUCATION

Stanford University, Stanford, CA — September 2022 – June 2027 (Expected)
Doctor of Philosophy, Institute for Computational and Mathematical Engineering (ICME), GPA: 3.7

Columbia University, Columbia College, New York, NY — September 2018 – May 2022
Bachelor of Arts, Data Science, GPA: 4.0 *(Cum Laude)*

HONOURS

Dean's List, Columbia University (All semesters, excluding COVID-affected semesters)

TEACHING EXPERIENCE

Stanford University, ICME
Teaching Assistant, Ordinary Differential Equations — September 2023 – Present

Columbia University, Mathematics Department
Teaching Assistant, Calculus II — September 2021 – December 2021

RESEARCH EXPERIENCE

Stanford University, Statistics
Research Assistant, Advisor: Lihua Lei — November 2023 – Present
- Risk control for LLMs, in particular, conditional value at risk (CVaR)

Stanford University, Management Science & Engineering
Research Assistant, Advisor: Markus Pelger — March 2023 – Present
- Uncertainty quantification of machine learning models for financial applications

Columbia University, Center for Theoretical Neuroscience
Undergraduate Research Assistant, Advisor: Liam Paninski — September 2021 – June 2022
- Performed behavioral segmentation for classifying animal behaviors via semi-supervised sequence model

Columbia University, Digital Video and Multimedia (DVMM) Lab
Undergraduate Research Assistant, Advisor: Shih-Fu Chang — September 2020 – August 2021
- Contributed to *NYCSmart*, a social media analysis project sponsored by the NYC Mayor's Office
- Implemented computer vision techniques for event and sentiment detection of 700,000+ images
- Conducted multimodal topic modeling of images using text features of 7+ million tweets

WORK EXPERIENCE

Google
Software Product Sprint: Machine Learning Participant — July 2020 – August 2020
- Designed and generated a book recommendation system using machine learning algorithms

Point Robotics Medtech Inc.
Software Engineering Intern — July 2019 – August 2019
- Assisted in creating surgical robots by developing software for the start-up company
- Developed programs for 3D image reconstruction of 2D images of the spine

PUBLICATIONS

- Whiteway M., Wu A., Bramel M., Buchanan K., Chen C., Mishra N., Schaffer E., Villegas A., Paninski L. *Semi-supervised sequence modeling for improved behavioral segmentation*. CoSyNe, 2022.

RESEARCH INTERESTS

- Combating situations in which machine learning algorithms fail: anomaly detection, uncertainty quantification, distribution shifts, and out-of-distribution detection.