Bingbin Liu | Curriculum Vitae

650-304-8852 • bingbin@cs.stanford.edu • claraliubb.github.io

AI track Master student at Stanford working on video understanding and its application in health care.
Seeking a research internship for summer 2019.

Education

- **Stanford University** — **Stanford, CA**
  M.S. Candidate, Computer Science (AI track), GPA 3.87/4.00 — *September 2017–June 2019*
- **The University of Hong Kong** — **Hong Kong**
  B.Eng. CS Major & Math Minor, GPA 3.93/4.3, Major GPA 4.1/4.3 (First-Class Honour) — *2013–2017*
- **UC Santa Barbara** — **Santa Barbara, CA**
  Exchange Study, GPA 4.0/4.0 — *January – June 2016*
- **UC Berkeley** — **Berkeley, CA**
  Exchange Study, GPA 4.0/4.0 — *summer 2014*

Publications

- **Temporal Modular Networks for Retrieving Complex Compositional Activities in Videos** *ECCV18*
- **Learning to Decompose and Disentangle Representations for Video Prediction** *NIPS18*
- **3D Point Cloud-Based Visual Prediction of ICU Mobility Care Activities** *MLHC18*

Experience

- **Graduate Teaching Assistant** — **Stanford University**
  MED277/CS337 - AI-Assisted Health Care — *Fall 2018*
- **Graduate Research Assistant** — **Stanford University**
  Action recognition in egocentric videos. — *Summer 2018*
- **Graduate Teaching Assistant** — **Stanford University**
  CS231N - Convolutional Neural Networks for Visual Recognition — *Spring 2018*
- **Independent Study** — **Stanford University**
  Partnership in AI-Assisted Care (PAC), Computer Vision Lab — *Fall 2017 - Spring 2018*
- **Group IT Intern - Enterprise and Analytics** — **CLP Power Hong Kong Limited**
  Data analysis for enhancing services of help desk, meter reads, and critical systems. — *Summer 2016*
- **Software Engineering Intern** — **Hututa Technologies Limited, Hong Kong**
  Test and development of a system for efficient data processing — *Summer 2015*

Projects

- **Stacked Attention for Visual Question Answering** *CS224N, Stanford University*

  Use LSTM as the language model and applied stacked spatial attention layers to capture the interaction between words and visual region for VQA tasks on the Visual7W dataset.
- **Automatic Melody Transcription** *CS229, Stanford University*

  Pre-processed input audios into different types of spectrograms for timbre-invariant features; applied CNN on the spectrograms to predict music notes, and post-processed with HMM for melody tracking.
- **Cell Classification and Counting** *Summer research, The University of Hong Kong*

  Used MSER and CNN to classify and count bacteria in microscopic images to improve efficiency and reliability of BV diagnosis.
- **Object Recognition in Videos** *Final Year Project, The University of Hong Kong*

  Based on T-CNN (Caffe) and used volumetric convolution (torch) and post-processing (MATLAB and Python) to leverage temporal and contextual information to handle complexities such as motion blur and occlusion.
- **Compiler (Undergraduate Research)** *UC Santa Barbara*

  Build a compiler in Haskell for a research project which aimed at devising a functional ISA for simplified formal verification at the programming language lab.