Serena Yeung
Assistant Professor of Biomedical Data Science and, by courtesy, of Computer Science and of Electrical Engineering
Department of Biomedical Data Science

CONTACT INFORMATION
• Administrative Contact
  Julie Kline - Faculty Administrator
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Bio

BIO
Dr. Serena Yeung is an Assistant Professor of Biomedical Data Science and, by courtesy, of Computer Science and of Electrical Engineering at Stanford University. Her research focus is on developing artificial intelligence and machine learning algorithms to enable new capabilities in biomedicine and healthcare. She has extensive expertise in deep learning and computer vision, and has developed computer vision algorithms for analyzing diverse types of visual data ranging from video capture of human behavior, to medical images and cell microscopy images.

Dr. Yeung leads the Medical AI and Computer Vision Lab at Stanford. She is affiliated with the Stanford Artificial Intelligence Laboratory, the Clinical Excellence Research Center, the Center for Artificial Intelligence in Medicine & Imaging, the Center for Human-Centered Artificial Intelligence, and Bio-X. She also serves on the NIH Advisory Committee to the Director Working Group on Artificial Intelligence.

ACADEMIC APPOINTMENTS
• Assistant Professor, Department of Biomedical Data Science
• Assistant Professor (By courtesy), Computer Science
• Assistant Professor (By courtesy), Electrical Engineering
• Member, Bio-X

HONORS AND AWARDS
• Harvard Technology for Equitable and Accessible Medicine Fellowship, Harvard University (2018 - 2019)

PROFESSIONAL EDUCATION
• Postdoctoral Fellow, Harvard University (2019)
• Ph.D., Stanford University (2018)
Teaching

COURSES

2019-20
• Artificial Intelligence in Healthcare: BIODS 220 (Win)

2018-19
• Convolutional Neural Networks for Visual Recognition: CS 231N (Spr)

2017-18
• Convolutional Neural Networks for Visual Recognition: CS 231N (Spr)

2016-17
• Convolutional Neural Networks for Visual Recognition: CS 231N (Spr)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)
Jingwei Ji, Darvin Yi

Doctoral Dissertation Advisor (AC)
Ali Mottaghi

Master's Program Advisor
Kamil Ali, Julia Gong

Publications

PUBLICATIONS

• Ethical and Legal Aspects of Ambient Intelligence in Hospitals. JAMA
  Gerke, S., Yeung, S., Cohen, I. G.
  2020

• A computer vision system for deep learning-based detection of patient mobilization activities in the ICU. NPJ digital medicine
  2019; 2: 11

• Every Moment Counts: Dense Detailed Labeling of Actions in Complex Videos INTERNATIONAL JOURNAL OF COMPUTER VISION
  Yeung, S., Russakovsky, O., Jin, N., Andriluka, M., Mori, G., Li Fei-Fei
  2018; 126 (2-4): 375–89

• Scaling Human-Object Interaction Recognition through Zero-Shot Learning
  Shen, L., Yeung, S., Hoffman, J., Mori, G., Li Fei-Fei, IEEE
  IEEE.2018: 1568–76

• Temporal Modular Networks for Retrieving Complex Compositional Activities in Videos European Conference on Computer Vision
  Liu, B., Yeung, S., Chou, E., Huang, D., Fei-Fei, L., Niebles, J.
  2018: 569–86

• Bedside Computer Vision - Moving Artificial Intelligence from Driver Assistance to Patient Safety. The New England journal of medicine
  Yeung, S., Downing, N. L., Fei-Fei, L., Milstein, A.
  2018; 378 (14): 1271–73

• Tool Detection and Operative Skill Assessment in Surgical Videos Using Region-Based Convolutional Neural Networks
  Jin, A., Yeung, S., Jopling, J., Krause, J., Azagury, D., Milstein, A., Li Fei-Fei, IEEE
IEEE.2018: 691–99

- **Learning to Learn from Noisy Web Videos**
  Yeung, S., Ramanathan, V., Russakovsky, O., Shen, L., Mori, G., Li Fei-Fei, IEEE
  IEEE.2017: 7455–63

- **Jointly Learning Energy Expenditures and Activities using Egocentric Multimodal Signals**
  Nakamura, K., Yeung, S., Alahi, A., Li Fei-Fei, IEEE
  IEEE.2017: 6817–26

- **End-to-end Learning of Action Detection from Frame Glimpses in Video** *Computer Vision and Pattern Recognition*
  Yeung, S., Russakovsky, O., Mori, G., Fei-Fei, L.
  2016: 2678–87