

Evan M. Yu

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EDUCATION

Cornell University - PhD

Sep 2015 – Present

Biomedical Engineering

Ithaca, NY

Advisor: Mert R. Sabuncu

Committee: Kilian Q. Weinberger and Amy Kuceyeski

Cornell University - MS

Ithaca, NY

Biomedical Engineering

2019

Stony Brook University - BE

Stony Brook, NY

Biomedical Engineering

Aug. 2011 – May 2015

Summa Cum Laude - Highest Honor

PUBLICATIONS

Evan M. Yu, Juan Eugenio Iglesias, Adrian V. Dalca, Mert R. Sabuncu. An Auto-Encoder Strategy for Adaptive Image Segmentation. Medical Imaging with Deep Learning (2020). **Spotlight**.

Evan M. Yu, Mert R. Sabuncu. A Convolutional Autoencoder Approach to Learn Volumetric Shape Representations for Brain Structures. International Symposium on Biomedical Imaging (2018). **Oral**.

Evan M. Yu, Adrian V. Dalca, Mert R. Sabuncu. Learning Conditional Deformable Shape Templates for Brain Anatomy. MICCAI: Machine Learning in Medical Imaging (2020).

Adrian V. Dalca, Evan M. Yu, Polina Golland, Bruce Fischl, Mert R. Sabuncu, Juan Eugenio Iglesias. Unsupervised Deep Learning for Bayesian Brain MRI Segmentation. Medical Image Computing and Computer Assisted Intervention (2019).

PROFESSIONAL EXPERIENCE

Graduate Research Assistant

Aug 2015 – Present

Cornell University

Ithaca, NY

Research Interest: medical image analysis, deep learning, machine learning, computer vision

Ongoing work: domain adaptation, weakly supervised segmentation, out-of-distribution detection

Intern

May 2016 – Aug 2016

New York-Presbyterian & Weill Cornell Medicine

New York, NY

- Employ a machine learning algorithms to help predict prognosis of traumatic brain injury
- Interaction with physicians to learn about of technological challenges in clinical practice
- OR observership

Teaching Assistant

Cornell University

- ECE 5970: Machine Learning with Biomed Data (Fall 2018 & 2020)
- BME 5930: BME Master of Engineering projects (Spring 2014)

Stony Brook University

- BME 212: Biomedical Engineering Research Fundamentals (Spring 2014)

Undergrad Research

Sep 2013 – May 2015

Stony Brook University

Stony Brook, NY

- Deployed kernel methods to identify patients with major depressive disorder
- Supervised interns' manual delineation and correction of brain MRI

Summer Undergraduate Research

Buffalo University (2014)

- Developed LabVIEW pipeline to conduct and evaluate self-administration experiments for rodents

- Designed cost-effective rat chambers, saving thousands of dollars, for self-administration experiments

Stony Brook University (2013)

- Investigated the role of low intensity vibration on bone preservation
- Operated a microCT to observe the effect of cancer on rat bones

HONORS AND AWARDS

Neufeld S. Arthur & Dorothy R Schol Fellowship USD 8,593.00
 Presidential Scholarship USD 10,000.00
 SUNY Brain Summer Scholar USD 3,500.00
 Dean's List, Stony Brook University (2011-2015)

COMMUNITY SERVICE

Journal Reviewer	Present
<ul style="list-style-type: none"> • Active reviewer for Neuroimage and The Machine Learning for Biomedical Imaging (MELBA) 	
MICCAI UNSURE Workshop	Oct 2020
<ul style="list-style-type: none"> • Reviewing Committee 	
Graduate Students Mentoring Undergraduates	Sep 2016 - April 2018
<ul style="list-style-type: none"> • Supported the scholarship and professional development of undergraduate scholars 	
SBU Campus Community Emergency Response Team	Jan 2011 - May 2013
<ul style="list-style-type: none"> • Assisted in first-aid stations, crowd and traffic control during events on campus 	

TECHNICAL SKILLS

Programming Languages: Python, Matlab, LabVIEW, C.
Machine Learning Tools: PyTorch, Keras, Scikit.
Developer Tools: Git, Vim, LaTeX.
Language: fluent in English and Spanish, conversational Cantonese.

COURSEWORK

Bayesian Machine Learning · Computer Vision · Statistical Distances for Machine Learning · Probability and Statistics
 Machine Learning with Biomedical Applications · Signals and Systems · Linear Algebra · Ordinary Differential
 Equations · Quantitative Human Physiology