Xide Xia

MCS138, 111 Cummington Mall, Boston, MA 02215
https://xidexia.github.io/
Phone: (401) 209-4920
Email: xidexia@bu.edu; xidexia@gmail.com

EDUCATION

Boston University 2016 – Present
Ph.D. candidate in Computer Science Boston, MA
Advisor: Professor Brian Kulis

Harvard University, Institute for Applied Computational Science 2014 – 2016
M.E. in Computational Science and Engineering Cambridge, MA

Brown University, School of Engineering 2012 – 2013
M.S. in Electrical Engineering Providence, RI

Beijing Institute of Technology, College of Information and Electronics 2008 – 2012
B.S. in Electrical and Information Engineering Beijing, China

RESEARCH INTERESTS

Deep Learning, Computer Vision, Metric Learning, Transfer Learning, and Image Segmentation.

PROFESSIONAL EXPERIENCE

Google AI Research, Mountain View, CA May 2019 – Present
Research Intern at Google Research & Machine Intelligence

• Image enhancement and style transfer learning.

Boston University, Boston, MA Sept 2016 – Present
Research Assistant in Image and Video Computing (IVC) Lab

• Attribute-based fashion retrieval.
• Deep metric learning for image retrieval via list-wise ranking loss.
• Multi-attribute learning for fast image/fashion searching and ranking.
• Fully-unsupervised image segmentation and learning the underlying lower-dimensional representation for images.
• Image reconstruction from sparse contours.
• Multi-domain learning and adaptation.

Google, Mountain View, CA May 2018 – Aug 2018
SWE-PhD Intern at Google Map in the Street-Smart Team

• Design and implement a deep attribute-based embedding model for traffic sign data and improve the F1 score by around 18%.

Legendary Applied Analytics, Boston, MA Sept 2017 – May 2018
Research Intern

• Develop and implement a deep Convolutional Neural Network for spatial-temporal representation learning.
• Predict viewer counts and like/dislike ratio prediction for trailer movies.

Harvard University, Cambridge, MA Feb 2015 – June 2016
Research Assistant

• Designed and implemented a Recurrent Neural Network (RNN) model for intervention and outcome predictions in ICU.
• Simulated multidimensional physiological time series of patients during vasopressor administration.
• (M.E. Thesis) Batch Mode Active Learning and Its Application to Astronomy: Developed a batch-mode cost-sensitive active learning approach to optimize astronomical observations for object classification that not only exploited uncertainty and representativeness of the whole unlabeled dataset but also considered the annotation costs.

Harvard Medical School, Boston, MA Aug 2013 – June 2016
Research Fellow in the Laboratory of Systems Pharmacology (LSP)

- Developed a new computational method for predicting protein-DNA interactions based on sequences information.
- Developed a Protein-DNA Structure-Affinity Database (PDSA) in which the experimental and quantitative DNA binding affinities of helix-turn-helix proteins were mapped onto the crystal structures of the corresponding protein-DNA complexes.

PUBLICATION

[P.5] **Xide Xia**, Xingchao Peng, Brian Kulis. "W-Net: A Deep Model for Fully Unsupervised Image Segmentation." Submitted; Under reviewing.

[P.4] Xingchao Peng, Qinxun Bai, **Xide Xia**, Zijun Huang, Kate Saenko, Bo Wang. "Moment Matching for Multi-Source Domain Adaptation." Submitted; Under reviewing.

[P.3] Kun He, Fatih Cakir, **Xide Xia**, Brian Kulis, Stan Sclaroff. "Deep Metric Learning to Rank."In Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2019.

[P.2] **Xide Xia**, Finale Doshi-Velez, Pavlos Protopapas. "Cost-Sensitive Batch Mode Active learning: Designing Astronomical Observation by Optimizing Telescope Time and Telescope Choice." In Proceedings of SIAM Data Mining Conference (SDM) 2016.

[P.1] Mohammed AlQuraishi, Shengdong Tang, **Xide Xia**. "An affinity-structure database of helix-turn-helix: DNA complexes with a universal coordinate system." BMC Bioinformatics, 16(1), 390. PMID:26586237.

HONORS & AWARDS

2016 – Present

- Research Fellowship (2016-Present, Boston University, Boston, MA)
- CRA-Women Graduate Cohort Workshop Student Award 2017
- Dean's Fellow Scholarship (2016-2017, Boston University, Boston, MA)
- Harvard IACS Student Scholarship (2015-2016, Harvard University, Cambridge, MA)
- SDM Student Award 2016

Before 2016

- Research Fellowship (2013-2016, Harvard Medical School, Cambridge, MA)
- Ren-Min Scholarship (2008-2012, Beijing Institute of Technology, Beijing, China)

TEACHING EXPERIENCE

Boston University Boston, MA

- CS585 Image and Video Computing, upcoming Spring 2020
- CS591 Deep Learning, Fall 2018
- CS131 Combinatoric Structures, Fall 2016

Harvard University Cambridge, MA

- AM207 Stochastic Methods for Data Analysis, Inference, and Optimization, Spring 2016

PROFESSIONAL ACTIVITIES

Reviewer of CVPR, ICCV, ECCV, SDM, and BMVC.

TECHNICAL STRENGTHS

Proficient in programming languages: Python, Matlab, C/C++, Java, R.
Proficient in deep learning packages: Tensorflow, PyTorch, Keras, MatConvNet, Caffe.