

## EDUCATION

### Boston University

*Ph.D.* candidate in Computer Science  
- Advisor: Professor Brian Kulis

Boston, MA  
2016 – 2020 (expected)

### University of California, Berkeley

- Visiting *Ph.D.* student supervised by Professor Trevor Darrell

Berkeley, CA  
2019 – Present

### Harvard University

*M.E.* in Computational Science and Engineering

Cambridge, MA  
2014 – 2016

### Brown University

*M.S.* in Electrical Science

Providence, RI  
2012 – 2013

### Beijing Institute of Technology

*B.S.* in Electrical and Information Engineering

Beijing, China  
2008 – 2012

## RESEARCH INTERESTS

- **Transfer Learning:** image/video style transfer, domain adaptation, and segmentation.
- **Embedding Models:** fast fashion retrieval, deep metric learning for ranking, and attribute-based models.

## RESEARCH & INDUSTRY EXPERIENCE

### • Berkeley AI Research (BAIR), UC Berkeley

Visiting *Ph.D.* student supervised by Professor Trevor Darrell

Berkeley, CA  
Sept 2019 – Present

- Develop an end-to-end model for zero-shot real-time video style transfer.

### • Google AI Research

Student Researcher

Mountain View, CA  
Sept 2019 – Present

- Generalize the style transfer model to arbitrary styles.
- Extend the image photorealistic style transfer model to video datasets.
- Results will be submitted as a conference paper to CVPR 2020.

### • Google AI Research

Research Intern

Mountain View, CA  
May 2019 – Aug 2019

- Developed an end-to-end model for image enhancement and photorealistic image style transfer.
- Graphic/layout design stylization.

### • BU Image and Video Computing (IVC) Lab

Research Assistant

Boston, MA  
Sept 2016 – May 2019

- Attribute-based deep metric learning for fashion retrieval.
- Fully-unsupervised image segmentation and learning the underlying lower-dimensional representation for images.
- Multi-domain transfer learning and adaptation.
- Results are published/submitted as conference papers at CVPR, ICCV, WACV and AAAI.

### • Google

SWE-PhD Intern

Mountain View, CA  
May 2018 – Aug 2018

- Designed and implement a deep attribute-based embedding model for traffic sign data.
- Improved the F1 score by around 18% on unseen data.

### • Legendary Applied Analytics

Research Intern

Boston, MA  
Sept 2017 – May 2018

- Developed and implement a deep Convolutional Neural Network for spatial-temporal representation learning.
- Developed a model to predict viewer counts and like/dislike ratio prediction for trailer movies.

## • Harvard University

Research Assistant

Cambridge, MA

Feb 2015 – June 2016

- 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: Cost-Sensitive Batch Mode Active learning and Its Application to Astronomy.*
- Results are published as a conference paper at SDM 2016.

## • Harvard Medical School

Research Fellow in the Laboratory of Systems Pharmacology (LSP)

Boston, MA

Aug 2013 – June 2016

- 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.
- Results are published as a journal paper at BMC Bioinformatics.

## PUBLICATION

[P.6] **Xide Xia**, Kun He, Fatih Cakir, Brian Kulis. “**Fashion Retrieval with Fine-Grained Attribute Representation Learning.**” Submitted; Under reviewing.

[P.5] **Xide Xia**, Xingchao Peng, Brian Kulis. “**W-Net: A Deep Model for Fully Unsupervised Image Segmentation.**” ArXiv tech report 1711.08506. Submitted; Under reviewing.

[P.4] Xingchao Peng, Qinxun Bai, **Xide Xia**, Zijun Huang, Kate Saenko, Bo Wang. “**Moment Matching for Multi-Source Domain Adaptation.**” In Proc. IEEE International Conference on Computer Vision (ICCV) 2019, Oral.

[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

[A.7] Research Fellowship (2016-Present, Boston University, Boston, MA)

[A.6] CRA-Women Graduate Cohort Workshop Student Travel Award 2017

[A.5] Dean’s Fellow Scholarship - awarded to two students each year (2016-2017, Boston University, Boston, MA)

[A.4] Harvard IACS Scholarship - awarded to one student each year (2015-2016, Harvard University, Cambridge, MA)

[A.3] SDM Student Travel Award 2016

[A.2] Research Fellowship (2013-2016, Harvard Medical School, Cambridge, MA)

[A.1] Ren-Min Scholarship (2008-2012, Beijing Institute of Technology, Beijing, China)

## TEACHING EXPERIENCE

- |   |             |
|---|-------------|
| • CS585 Image and Video Computing, Boston University  | Spring 2020 |
| • CS591 Deep Learning, Boston University  | Fall 2018   |
| • CS131 Combinatoric Structures, Boston University  | Fall 2016   |
| • AM207 Stochastic Methods for Data Analysis, Inference, and Optimization, Harvard University | Spring 2016 |

## PROFESSIONAL SERVICES

Reviewer of CVPR, ICCV, ECCV, AAAI, ACMMM, WACV, SDM, and BMVC.

## TECHNICAL STRENGTHS

- **Programming Languages:** Python, C/C++, Java, Matlab, and R.
- **Deep Learning Libraries:** Tensorflow, PyTorch, MatConvNet, Keras, and Caffe.