Xudong Lin

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EDUCATION

Department of Physics, Tsinghua University   Aug 2014- Jul 2018 (Expected)

Mathematics and Physics

GPA (Overall): 3.58/4.0; GPA (Core & Relevant): 3.72/4.0; Ranking (Total): 11/99

Some Courses Taken in the Sophomore or Junior Year: Astrophysics (3.98/4.0, Top 5), Introduction of Scientific Computing (3.81/4.0, Top 2), Mathematical Physics Equations (3.95/4.0), Fundamental Pattern Recognition (3.77/4.0)

RESEARCH EXPERIENCE

Intelligent Vision Group | Tsinghua University | Research Assistant   July 2016 - Present

Advisor: Jiwen Lu, Associate Professor at Department of Automation, Tsinghua University

➢ Researched the gaze correction problem, collected a new dataset for it, and constructed a model with spatial constraints to generate realistic corrected face pictures, together with a Ph.D. candidate.

➢ Proposed an end-to-end adversarial network to generate hard negative samples to improve deep metric learning and my implementation performed beyond current state-of-the-art, submitted to CVPR 2018

➢ Utilized reinforcement learning to explore relationships among bits of binary descriptors, and significantly improved the state of art on three widely tested tasks, submitted to CVPR 2018

Vision Research Lab | University of California, Santa Barbara | Summer intern   June 2017 – Present

Advisor: B.S. Manjunath, Professor in Department of Electrical and Computer Engineering, UCSB

➢ Defined a new problem called salient events temporal localization and annotated a new dataset based on a driving video dataset

➢ Proposed a novel approach which utilizes rich semantic features to temporally localize salient events

➢ Cooperated with a Ph.D. candidate on video saliency prediction and prepared a paper to be submitted to *IEEE Transactions on Intelligent Transportation Systems*

Institute for Interdisciplinary Information Sciences | Tsinghua University | Research Assistant   June 2016 – Aug 2016

Advisor: Zhangqi Yin, Assistant Research Fellow at Institute for Interdisciplinary Information Sciences, Tsinghua University

➢ Investigated quantum image processing and wrote a simple literature review on quantum image representation

SUBMITTED MANUSCRIPTS

➢ Y. Duan, W. Zheng, **Xudong Lin**, J. Lu, J. Zhou. "Deep Adversarial Metric Learning," submitted to *IEEE Conference on Computer Vision and Pattern Recognition 2018*;

➢ Y. Duan, Z. Wang, J. Lu, **Xudong Lin**, J. Zhou. "GraphBit: Mining Bitwise Interaction via Deep Reinforcement Learning," submitted to *IEEE Conference on Computer Vision and Pattern Recognition 2018*;

➢ T. Deng*, **Xudong Lin***, B.S. Manjunath. "Video Saliency Prediction in Traffic Driving Scenes via U-Net Convolutional Networks," to be submitted to *IEEE Transactions on Intelligent Transportation Systems*; (* indicates equal contributions)

ACTIVITIES AND LEADERSHIP

➢ Undergraduate Overseas Research Training Supporting Program, Tsinghua University, 400/16000   June 2017 – Sep 2017

Youth League Committee, Tsinghua University | Vice Supervisor of New Year Gala Group   Sep 2016 - Dec 2016

➢ Led the multimedia team during the New Year Gala, which was webcast and watched by more than 10,000 people

Student Union, Department of Physics | Director of Entertainment Department   June 2015 - June 2016

➢ Held the gala for the 90th anniversary of Department of Physics, which consisted of about 20 programs

SKILLS

Programming: Matlab, C/C++, Python, Pytorch, Tensorflow, Chainer, Caffe.

Language Skills: Chinese (Mandarin), English (Fluent; TOEFL iBT, 103)

Others: Eyelink 1000 Eye-tracking System