

# Zhongping Zhang

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## EDUCATION

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<b>Boston University</b> <i>Ph.D.</i> in Computer Science, <i>Advisor: Bryan Plummer</i>	Boston, MA, US 2019 - 2023 (expected)
<b>University of Rochester</b> <i>Master</i> in Electrical Engineering	Rochester, NY, US 2016 - 2018
<b>Harbin Institute of Technology</b> <i>Bachelor</i> in Control Science & Engineering	Harbin, China 2012 - 2016

## RESEARCH INTERESTS

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My primary research interests span computer vision and natural language processing, with a current focus on machine manipulated media generation and detection.

## EXPERIENCE

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<b>Boston University</b> Research Assistant, IVC Group machine manipulated media generation & detection, deep metric learning	Boston, MA Sep 2019 - present
<b>Kwai Inc.</b> Research Intern, Silicon Valley AI Lab multi-modal movie analysis, scene-graph based image manipulation	Palo Alto, CA Summer 2020;2021
<b>Los Alamos National Laboratory</b> Research Associate data-driven methods for geoscience	Los Alamos, NM Jun 2018 - Jan 2019
<b>University of Rochester</b> Research Assistant, VISTa Group image forgery detection, stylized image captioning, social media data mining	Rochester, NY Sep 2017 - May 2018

## PUBLICATIONS

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**Zhongping Zhang**, Yiwen Gu, Bryan Plummer. “Show and Write: Entity-aware News Generation with Image Information”, in submission.

**Zhongping Zhang**, Huiwen Hu, Bryan Plummer, Zhenyu Liao, Huayan Wang. “Semantic Image Manipulation with Background-guided Internal Learning”, in submission.

Samarth Mishra\*, **Zhongping Zhang**\*, Yuan Shen, Ranjitha Kumar, Venkatesh Saligrama, Bryan Plummer. “Effectively Leveraging Attributes for Visual Similarity”, *IEEE International Conference on Computer Vision (ICCV)*, 2021. (\* represents equal contribution)

**Zhongping Zhang**, Youzuo Lin. “Data-Driven Seismic Waveform Inversion: A Study on the Robustness and Generalization”, *IEEE Transactions on Geoscience and Remote Sensing (TGRS)*, 2020.

**Zhongping Zhang**, Youzuo Lin, Zheng Zhou, Tianlang Chen. “Adaptive Filtering for Event Recognition from Noisy Signal: An Application to Earthquake Detection”, *International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2019.

**Zhongping Zhang**, Yue Wu, Zheng Zhou, Youzuo Lin. “VelocityGAN: Data-driven Full Waveform Inversion by Conditional Adversarial Networks”, *IEEE Winter Conference on Applications of Computer Vision (WACV)*, 2019.

**Zhongping Zhang**, Tianlang Chen, Zheng Zhou, Jiaxin Li, Jiebo Luo. “How to Become Instagram Famous: Post Popularity Prediction with Dual-Attention”, *IEEE International Conference on Big Data (IEEE Big Data)*, 2018.

Tianlang Chen, **Zhongping Zhang**, Quanzeng You, Chen Fang, Zhaowen Wang, Hailin Jin, Jiebo Luo. ““Factual” or “Emotional”: Stylized Image Captioning with Adaptive Learning and Attention”, *European Conference on Computer Vision (ECCV)*, 2018.

**Zhongping Zhang**, Yixuan Zhang, Zheng Zhou, Jiebo Luo. “Boundary-based Image Forgery Detection by Fast Shallow CNN”, *International Conference on Pattern Recognition (ICPR)*, 2018.

Yingchao Meng\*, **Zhongping Zhang**\*, Huaqiang Yin, and Tao Ma. “Automatic Detection of Particle Size Distribution by Image Analysis Based on Local Adaptive Canny Edge Detection and Modified Circular Hough Transform”, *Micron*, 2018.

## PROFESSIONAL ACTIVITIES

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### Teaching

BU CS542 Machine Learning, <i>Teaching Fellow</i>	Fall 2020
BU CS101 Introduction to Computer Science, <i>Teaching Fellow</i>	Fall 2019, Spring 2020
UR ECE210 Circuits & Microcontrollers, <i>Teaching Assistant</i>	Spring 2018
UR ECE101 Introduction to Signals & Circuits, <i>Teaching Assistant</i>	Fall 2017

### Reviewer/PC Member

CVPR’22; ICLR’22; AAAI’22; NeurIPS’21; Micron’19; ICPR’18

### Publicity Chair

BU AIR Seminar’22

### Presentation

“VelocityGAN: Subsurface Velocity Image Estimation Using Conditional Adversarial Networks”, *IEEE Winter Conference on Applications of Computer Vision (WACV)*, Hilton Waikoloa Village, Hawaii, Jan. 2019.

“DeepDetect: Earthquake Detection with Convolutional Neural Network”, *Joint Meeting on Machine Learning Applications to Seismology*, University of New Mexico, Albuquerque, NM, Aug. 2018. (Invited talk)

“Spatial-temporal Densely Connected Convolutional Networks: An Application to CO2 Leakage Detection”, *International Exposition 88th Annual Meeting, Society of Exploration, Geophysicists (SEG)*, Anaheim, CA, Oct. 2018.

## AWARDS

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Tuition Scholarship, University of Rochester (2016-2018)  
Second Prize Scholarship, Harbin Institute of Technology (2012-2013)

## TECHNICAL SKILLS

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**Languages:** Python, MATLAB, R, Java,  $\text{\LaTeX}$

**Frameworks:** PyTorch, Keras, TensorFlow, OpenCV

**Operating Systems:** Linux, Mac OSX, Windows