

Soravit (Beer) Changpinyo



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EDUCATION

University of Southern California Los Angeles, CA 2012-2018

Ph.D. in Computer Science

M.S. in Computer Science

Advisor: Prof. Fei Sha

Current GPA: 3.97/4.00

Brown University Providence, RI 2008-2012

B.S. in Computer Science

magna cum laude with Honors

GPA: 4.00/4.00

RESEARCH & INDUSTRY EXPERIENCE

Research Assistant Fall 2012-2018

University of Southern California

Supervisor: Prof. Fei Sha

- Learning with limited data including zero-shot, transfer, and multi-task learning. Relevant publications: C2, C3, C4, C5, J1
- Non-metric similarity modeling. Relevant publications: C1, P1
- Applications to computer vision and natural language processing

Software Engineering Intern Summer 2017

Google Research, New York City

Host: Richard Zens

Large-scale temporal and higher-order analysis of the discourse of topics on the Web

Software Engineering Intern Summer 2016

Google Research, Mountain View

Host: Mark Sandler

Convolutional neural network compression with sparse random connectivity patterns. Relevant publication: P2. Patent pending.

Research Assistant Fall 2011 & Spring 2012

Brown University

Supervisor: Prof. Erik Sudderth

Bayesian nonparametric methods for image attribute and topic modeling. Relevant publication: T1

Research Intern Summer 2011

Information Trust Institute, University of Illinois at Urbana-Champaign

Supervisors: Profs. Marianne Winslett & Arash Termehchy

Keyword search over semi-structured information sources

Research Assistant Summer 2010

Brown University

Karen T. Romer Undergraduate Research Award

Supervisors: Profs. Maurice Herlihy & R. Iris Bahar

Transactional memory on embedded devices

SELECTED HONORS

Outstanding Reviewer, The IEEE Conference on Computer Vision and Pattern Recognition (2019)

Annenberg Graduate Fellowship, University of Southern California (2012-2016)

Royal Thai Government Scholarship (2007-2012)

INVITED TALKS

“Pushing the Limits of Featurization in Image Captioning”

Conceptual Captions Challenge, CVPR Workshop

Long Beach, California Jun 2019

“Zero-Shot Learning for Object Recognition in the Wild”

Amazon

Seattle, Washington Jan 2018

Bloomberg

New York City, New York Jan 2018

“Synthesized Classifier for Zero-Shot Learning”

The French Institute for Research in Computer Science and Automation (Inria, Lille)

Lille, France Oct 2016

The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)

Las Vegas, Nevada Jun 2016

TEACHING EXPERIENCE

Graduate Teaching Assistant

Machine Learning (CSCI567)

Prof. Fei Sha Fall 2017

Special Topics in Machine Learning: Generative models &

Prof. Fei Sha Spring 2017

Reinforcement learning (CSCI599)

Undergraduate Teaching Assistant

Introduction to Machine Learning (CSCI1950f)

Prof. Erik Sudderth Spring 2012

Scientific Computing and Problem Solving (CSCI0040)

Dr. Christopher Crick Spring 2011

Models of Computation (CSCI0500)

Prof. John Savage Fall 2010

PROFESSIONAL SERVICE ACTIVITIES

Journal Reviewer

IEEE Signal Processing Letters (SPL) 2019

Pattern Recognition 2018

IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) 2017, 2018

Computer Vision and Image Understanding (CVIU) 2017

Conference Reviewer

Empirical Methods in Natural Language Processing (EMNLP) 2019

International Conference on Computer Vision (ICCV) 2019

Annual Meeting of the Association for Computational Linguistics (ACL), 2019

International Conference on Machine Learning (ICML) 2019

European Conference on Computer Vision (ECCV) 2018

Computer Vision and Pattern Recognition (CVPR) 2018, 2019

AAAI Conference on Artificial Intelligence (AAAI) 2017, 2019

Neural Information Processing Systems (NeurIPS) 2016, 2019

European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD) 2014

PUBLICATIONS

Refereed Journal Articles

- [J1] **Soravit Changpinyo***, Wei-Lun Chao*, Boqing Gong, and Fei Sha. Classifier and Exemplar Synthesis for Zero-Shot Learning. In *International Journal of Computer Vision (IJCV)*, 2019. To Appear.

Refereed Conference Proceedings

- [C5] **Soravit Changpinyo**, Hexiang Hu, and Fei Sha. Multi-Task Learning for Sequence Tagging: An Empirical Study. In *Proceedings of the International Conference on Computational Linguistics (COLING)*, 2018.
- [C4] **Soravit Changpinyo**, Wei-Lun Chao, and Fei Sha. Predicting Visual Exemplars of Unseen Classes for Zero-shot Learning. In *Proceedings of the IEEE International Conference on Computer Vision (ICCV)*, 2017.
- [C3] Wei-Lun Chao*, **Soravit Changpinyo***, Boqing Gong, and Fei Sha. An Empirical Study and Analysis of Generalized Zero-Shot Learning for Object Recognition in the Wild. In *Proceedings of the European Conference on Computer Vision (ECCV)*, 2016.
Oral spotlight presentation, 4.9% acceptance rate
- [C2] **Soravit Changpinyo***, Wei-Lun Chao*, Boqing Gong, and Fei Sha. Synthesized Classifiers for Zero-Shot Learning. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2016.
Oral presentation, 3.9% acceptance rate
- [C1] **Soravit Changpinyo***, Kuan Liu*, and Fei Sha. Similarity Component Analysis. In *Advances in Neural Information Processing Systems (NIPS)*, 2013.

Pre-prints / Technical Reports

- [P2] **Soravit Changpinyo**, Mark Sandler, and Andrey Zhmoginov. The Power of Sparsity in Convolutional Neural Networks. *arXiv*, 2017.
- [P1] **Soravit Changpinyo**, Zhiyun Lu, and Fei Sha. Probabilistic Latent Multi-Sense Skip-Gram. 2016.

Theses

- [T2] **Soravit Changpinyo**. Modeling, Learning, and Leveraging Similarity. Ph.D. Thesis, University of Southern California, 2018. To Appear.
- [T1] **Soravit Changpinyo**. Learning Image Attributes using the Indian Buffet Process. Sc.B. Honors Thesis, Brown University, 2012.

TECHNICAL SKILLS

Programming Languages

■■■■□ Python, C/C++, Matlab, Java
■■□□□ SQL, HTML/CSS, JavaScript, PHP, R

Frameworks

■■■■□ PyTorch & TensorFlow

SELECTED EXTRACURRICULAR ACTIVITIES

Co-organizer of Trojan AI Social for discussing topics that go beyond day-to-day research in artificial intelligence (2017)

Tennis Brown University Intramural Champions (Spring 2010 & Fall 2011)

Southeast Asian Service Leadership Network (SEALNet)'s Active Learning Outreach Project Thailand (Summer 2009)