

EDUCATION

Shanghai Jiao Tong University

Sep 2015 - Jun 2019

Bachelor of Engineering (Zhiyuan Honors Degree), Computer Science, ACM Honors Class

- Advisors: Prof. [Yong Yu](#) and Prof. [Xiaofeng Gao](#)
- Research Interests: Machine Learning, Data Mining, Computer Vision, and Natural Language Processing

RESEARCH
EXPERIENCE**Machine Learning Group, Purdue University**

Sep - Dec 2018




Visiting Undergraduate Research Intern

- Advisor: Prof. [Yexiang Xue](#)
- **Transform Scribbles to Oil Paintings with Multi-Task GANs.**
We introduced *Multi-Task Learning* to the settings of *Generative Adversarial Networks* to address the sparsity problem of scribbles. (CVPR 2019 Submission)
- **Hierarchical Learning for High-Dimensional Polynomials.**
Developing learning-rate adjustment algorithms and new network structures to balance the bias and variance for polynomial components with different degrees.

Counterfactual Machine Learning Group, Cornell University

July - Aug 2018

Visiting Undergraduate Research Intern

- Advisor: Prof. [Thorsten Joachims](#)
- **Improve Supervised Learning on Logged Bandit Feedbacks**
Straightforward supervised learning often leads to large bias. We improved supervised methods by applying *inverse propensity weighting* to balance the bias-variance tradeoff.
- **A Hybrid Method of Counterfactual Risk Minimization and Supervised Learning.**  
Proposed a new hybrid method which not only learns the feedback of logged action, but also minimizes counterfactual risk for all the candidates in a batch.
- **Ad Placement Challenge on Criteo Dataset** 
Implemented proposed methods to learn an ad placement policy. Our hybrid method achieved **Rank 1** in *NIPS 2017 Workshop: Criteo Ad Placement Challenge* (post-challenge).

Data Mining Group, Advanced Network Lab, Shanghai Jiao Tong University

July 2017 - Present

Research Assistant

- Advisor: Prof. [Xiaofeng Gao](#)
- **Cross-Platform Event Popularity Analysis.**
Developed a scheme to quantify event popularity and analyze the mechanisms through which an event propagates among multiple social media. (DEXA 2018 Paper)
- **Sentiment-Aware Topic Popularity Prediction on Short Text based Social Media.**
Developed a novel neural network to estimate public sentiment and integrate it with time series analysis to improve popularity prediction. (SDM 2019 Submission)

PUBLICATIONS

Scribble-to-Painting Transformation with Multi-task Generative Adversarial Nets **Jinning Li**, [Yexiang Xue](#)*Submitted to Conference on Computer Vision and Pattern Recognition (CVPR) 2019***Sentiment-Aware Topic Popularity Prediction on Short Text based Social Media** **Jinning Li**, [Qiang Zhang](#), [Jiayi Xu](#), [Xiaofeng Gao](#), [Guihai Chen](#)*Submitted to SIAM International Conference on Data Mining (SDM) 2019*

DancingLines: An Analytical Scheme to Depict Cross-Platform Event Popularity  

Tianxiang Gao, Weiming Bao, **Jinning Li**, Xiaofeng Gao, Boyuan Kong, Yan Tang, Guihai Chen, Xuan Li

In *International Conference on Database and Expert Systems Applications (DEXA)* 2018

Topic Detection and Dissemination Trend Analysis on Social Network 

Jiadong Chen, Tianxiang Gao, Xiaofeng Gao, Peng He, **Jinning Li**, Guihai Chen

Submitted to *SIAM International Conference on Data Mining (SDM)* 2019

HIGHLIGHTED
PROJECTS

DeepWave: Learning to Simulate Water Wave in Real-time  

CS230 *Virtual Reality and Interactive 3D Graphics*, **96/100**

Jun 2018

- Developed a method to learn the physical law of water-wave propagation and simulate the scene in real-time utilizing deep learning and wave packet theory.

Convolutional BiMPM for Natural Language Inference  

CS229 *Natural Language Processing*, **93/100**

May 2018

- Proposed a novel convolutional bilateral multi-perspective matching model for natural language inference task on SNLI dataset, improving the accuracy to 86.7%.

LineArtist: A Multi-style Sketch to Painting Synthesis Scheme   

CS348 *Computer Vision*, **92/100**

Dec 2017

- Developed a scheme to synthesize beautiful paintings with only some semantic sketches, including three procedures: *Sketch Image Extraction*, *Details Synthesis*, and *Style Transfer*.

Compiler Maple 

MS208 *Compiler Design and Implementation*, **Outperforms GCC -O1**

May 2017

- Designed and implemented a compiler from *Lexical Analysis* to *Register Allocation* with graph-coloring optimization, translating Mx* (a hybrid of C and Java) to x86 Assembly.

HONORS
AND
AWARDS

Academic Excellence Scholarship of SJTU (*First Prize*). (**Top 5%**)

2017

Interdisciplinary Contest in Modeling (*Meritorious Winner*). (**Top 7%**)

2017

Zhiyuan Honorary Scholarship

2016, 2017

Certificate Authority Cup International Mathematical

Contest in Modeling (*Outstanding Winner*). (**Top 1%**)

2015

Dongrun-Yau High School Science Award (*World Final*). (**Top 1%**)

2015

TEACHING
EXPERIENCE

MS100: Operating System

Spring 2018

Teaching Assistant

CS122: Programming

Fall 2016

Teaching Assistant

PROGRAMMING
PROFICIENCIES

C/C++, Java, Python (TensorFlow, PyTorch, MXNet)

HTML & Javascript (D3.js), MATLAB, L^AT_EX, Verilog HDL

INTERESTS,
ACTIVITIES

Finance, Biology, Art, and Physics

Member of Ivy Symphony Orchestra