Yingtao Tian

Computer Science Department, State University of New York at Stony Brook
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EDUCATION

State University of New York at Stony Brook, New York, United States

Ph.D, Computer Science   Fall 2014 - Ongoing

- Advisor: Prof. Steven Skiena
- Research interest: Representation learning and generative models, as well as their applications in natural language processing, knowledge base modeling, social network modeling, image generation and bioinformatics.

Fudan University, Shanghai, China

B.Sc., Computer Science and Technology   2010 - 2014

EXPERIENCE

Google Brain, California, United States

Software Engineering Intern   May 18 - Aug. 2018

- Host: Dr. Jesse Engel
- **Research on the latent space of generative models**

Facebook, California, United States

Software Engineering Intern   May 2017 - Aug. 2017

- Host: Dr. Haixun Wang
- **Research on natural language understanding.** Researched on Web Query Parsing by inferring query treebank, and Natural Language Interface to Database System leveraging database table schema with Seq2seq models.

Google Brain, California, United States

Software Engineering Intern   May 2016 - Nov. 2016

- Host: Dr. Stephan Gouws
- **Research on representation learning**
  Researched on investigating new representation learning techniques for both units (words) and sequences (sentences). Worked on sequence model for sentence representation and hierarchical embeddings.

Google, New York, United States

Software Engineering Intern, Search Group   May 2015 - Aug. 2015

- Host: Dr. Xiaomeng Ban
- **User-generated activity profiling and analysis**
  Implemented a profiling tool for analyzing activities generated by billions of users.
  Built a full-stack framework using a proper combination of distributed processing, aggregation and visualization for effective large-scale analysis of user-generated content.
  Leveraged module-based design for flexibilities to easily integrate new profiling tasks.

Microsoft Research Asia, Beijing, China

Research Intern, Data Management, Analytics and Services Group   Feb. 2013 - July 2013

- Advisor: Dr. Haixun Wang
- **Learning Semantic Vector Representation from Large Knowledge Base**
  Proposed and made experiments on a framework generating semantic embeddings (vector representation) from Probase, a large knowledge base and probabilistic taxonomy.

Research Intern, Web Search and Mining Group   July 2013 - Dec. 2013

- Advisor: Zhongyuan Wang
- **Concept Level Semantic Analysis**

Proposed and implemented semantic level text comparison based on concept level information extracted from corpus and probabilistic taxonomy.

Fudan University, Shanghai, China

Research Assistant, Graph Data Management Lab   Oct. 2012 - June 2014
- Advisor: Prof. Yanghua Xiao
- Designed and built a mechanism to extract information from huge amount of crawled web pages.

PUBLICATIONS /
WORKING PAPERS

Learning to Represent Bilingual Dictionaries Muhao Chen*, *Yingtao Tian**, Haochen Chen, Kai-Wei Chang, Steven Skiena, Carlo Zaniolo (* Equal Contribution)
Submitted to Thirty-Third AAAI Conference on Artificial Intelligence (AAAI-19)

A Transfer-Learnable Natural Language Interface for Databases Wenlu Wang, *Yingtao Tian*, Hongyu Xiong, Haixun Wang, Wei-Shinn Ku
Submitted to Thirty-Third AAAI Conference on Artificial Intelligence (AAAI-19)

Enhanced Network Embeddings via Exploiting Edge Attributes Haochen Chen, Xiaofei Sun, *Yingtao Tian*, Muhao Chen, Bryan Perozzi and Steven Skiena
To appear in the International Conference on Information and Knowledge Management (CIKM) 2018

Social Relation Inference via Label Propagation *Yingtao Tian*, Haochen Chen, Bryan Perozzi, Muhao Chen, Xiaofei Sun and Steven Skiena
Accepted in 14th International Workshop on Mining and Learning with Graphs

DeepAnnotator: Genome Annotation with Deep Learning, Mohammad Ruhul Amin, Alisa Yurovsky, *Yingtao Tian*, Steven Skiena
To Appear in the 9th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB-2018)

Simple Neologism Based Domain Independent Models to Predict Year of Authorship Vivek Kulkarni, *Yingtao Tian*, Parth Dandiwala, Steven Skiena
To Appear in the 27th International Conference on Computational Linguistics (COLING 2018)

Co-training Embeddings of Knowledge Graphs and Entity Descriptions for Cross-lingual Entity Alignment Muhao Chen, *Yingtao Tian*, Kai-Wei Chang, Steven Skiena, Carlo Zaniolo
In Proceedings of the 27th International Joint Conference on Artificial Intelligence (IJCAI), IJCAI/AAAI Press 2018.

Syntax-Directed Variational Autoencoder for Structured Data Hanjun Dai*, *Yingtao Tian** , Bo Dai , Steven Skiena, Le Song (* Equal Contribution)
To Appear in the International Conference on Learning Representations (ICLR), 2018.
Best Paper Award, NIPS 2017 workshop for Machine Learning for Molecules and Materials.

Embedding-based Relation Prediction for Ontology Population Muhao Chen, *Yingtao Tian*, Xuelu Chen, Zijun Xue, Carlo Zaniolo
To Appear in the 17th SIAM International Conference on Data Mining (SDM), SIAM 2018.

Towards End-End Generation of High-Resolution Images with Generative Adversarial Networks [Online Demo] Yanghua Jin, Jiakai Zhang, Minjun Li, *Yingtao Tian*, Huachun Zhu
Accepted and presented in spotlight, NIPS 2017 workshop for Machine Learning for Creativity and Design.

Multilingual Knowledge Graph Embeddings for Cross-lingual Knowledge Alignment
Muhao Chen, *Yingtao Tian*, Mohan Yang, Carlo Zaniolo.
In Proceedings of the 26th International Joint Conference on Artificial Intelligence (IJCAI), IJCAI/AAAI Press 2017.

PROFESSIONAL SERVICES	Reviewer, *LREC 2018, COLING 2016*

PATENTS   **Training and/or Utilizing Recurrent Neural Network Model to Determine Subsequent Source(s) for Electronic Resource Interaction** *Patent in submission, 2017*

HONORS AND AWARDS

27th place, 35th Annual World Final of the ACM-ICPC (2011)

Gold Medal, ACM-ICPC Asia Chengdu Regional Contest, 2011

Championship and Gold medal, ACM-ICPC Asia Amritapri Regional Contest, 2010

SERVICES

Team member and assistant coach, ACM-ICPC team of Fudan University   2010 - 2013
- Team member in the ACM-ICPC competition
- Assistant coach serving for daily training and competitions overseas.

Main technical staff, ACM-ICPC Shanghai Site Contest   Oct. 2011
- I participated in setting up the system for 2011 ACM-ICPC Shanghai
- Sites Contest as one of main technical staffs.

OTHER EXPERIENCE

Contest Level Problem Solver   2009 - Present
    An expert on problem solving under alias "alantian".
    Participated algorithm contests including Olympiad in Informatics, ACM-ICPC. and Google Code Jam