HAOCHEN CHEN

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EDUCATION

Stony Brook University　　　　　　　　　　　　　　　　August 2014 - May 2019
Ph.D. in Computer Science, Advisor: Prof. Steven Skiena
Research Interests: Data mining and machine learning, particularly representation learning on graphs.
Harbin Institute of Technology, China　　　　　　September 2012 - June 2014
M.Eng. in Computer Technology
Harbin Institute of Technology, China　　　　　　September 2008 - July 2012
B.Eng. in Computer Science and Technology

WORK EXPERIENCE

Software Engineer Intern, Facebook　　　　　　　　June 2018 - August 2018
Places GeoData Team　　　　　　　　　　　　　　　　New York City, NY

- Worked on building machine learning models to infer mappings between Facebook places and WiFi names. For example, Starbucks should be associated with WiFi name "Google Starbucks".
- Built the entire machine learning pipeline from candidates generation and feature computation to an ML model based on GBDT.
- Technologies involved: Python, Hive/Spark

Software Engineer Intern, Google　　　　　　　　　May 2017 - August 2017
Commonsense Team　　　　　　　　　　　　　　　　　Mountain View, CA

- Worked on improving Hyperpedia scoring model by incorporating word embedding features using a deep neural network. Hyperpedia is a large-scale database of is-a relations between instances and categories (such as "Google - company").
- Our neural network model achieves an AUC score of 0.774 on human annotated data, while the previous production model based on pattern matching counts gets an AUC of 0.742.
- Technologies involved: C++, Python, Tensorflow

Software Engineer Intern, Two Sigma Investments　　May 2016 - August 2016
Modeling Data Engineering Team　　　　　　　　　　New York City, NY

- Worked on project "Dataset Explorer", which is a data processing and visualization tool for financial fundamental data like earnings estimates.
- Technologies involved: Scala, Java, Angular.js, Highcharts

Software Engineer Intern, Two Sigma Investments　　May 2015 - August 2015
Quantitative Application Engineering Team　　　　　New York City, NY

- Worked on project "SimBot", which is a platform for running and analyzing batch of simulations.
- Technologies involved: Workflow Engine, Java, Angular.js, Chart.js

Technology Researcher Intern, Tencent　　　　　　August 2011 - November 2011
Search Platform Department　　　　　　　　　　　　Shenzhen, China

- Designed **benchmarks** for memset()/memcpy(), memory, I/O, sort algorithms and TCP/IP, which were used to analyze performance bottleneck of infrastructure.

PUBLICATIONS

- Yingtao Tian, **Haochen Chen**, Bryan Perozzi, Muhao Chen, Xiaofei Sun and Steven Skiena: *Social Relation Inference via Label Propagation*, **ECIR**, 2019.

- Muhao Chen, Yingtao Tian, **Haochen Chen**, Kai-Wei Chang, Steven Skiena and Carlo Zaniolo: *Learning to Represent Bilingual Dictionaries*, arxiv:1808.03726, 2018.

- **Haochen Chen**, Bryan Perozzi, Rami Al-Rfou and Steven Skiena: *A Tutorial on Network Embeddings*, arxiv:1808.02590, 2018.

- **Haochen Chen**, Xiaofei Sun, Yingtao Tian, Bryan Perozzi, Muhao Chen and Steven Skiena: *Enhanced Network Embeddings via Exploiting Edge Attributes*, **CIKM**, 2018.

- Yun He, **Haochen Chen**, Ziwei Zhu and James Caverlee: *Pseudo-Implicit Feedback for Alleviating Data Sparsity in Top-K Recommendation*, **ICDM**, 2018.

- **Haochen Chen**, Bryan Perozzi, Yifan Hu and Steven Skiena: *HARP: Hierarchical Representation Learning for Networks*, **AAAI**, 2018.

- Bryan Perozzi, Vivek Kulkarni, **Haochen Chen** and Steven Skiena: *Don't Walk, Skip!: Online Learning of Multi-scale Network Embeddings*, **ASONAM**, 2017.

- **Haochen Chen**, Arvind Ram Anantharam and Steven Skiena: *DeepBrowse: Similarity-Based Browsing Through Large Lists*, **SISAP**, 2017.

- Ting Liu, Xiao Ding, Yiheng Chen, **Haochen Chen**, and Maosheng Guo: *Predicting movie Box-office revenues by exploiting large-scale social media content*, Multimedia Tools and Applications, 2016.

AWARDS

5th Place in ACM/ICPC Greater New York Regional Contest	2014
First-Class Special Computer Science Chair Fellowship of Stony Brook University	2014
Honorable Mention in **ACM/ICPC World Finals**	2010
Gold Medal in ACM/ICPC Asia Regional Contest	2009

SKILLS

Programming Languages	C/C++, Python, Java, Shell Scripts, Scala, JavaScript
Tools & Packages	LaTeX, Jupyter Notebook, Numpy, Tensorflow, Angular.js

EXTRACURRICULAR ACTIVITIES

Research Assistant, Data Science Lab, Stony Brook University	2015 Fall - Present

Teaching Assistant for various courses:

– Analysis of Algorithms, Stony Brook University	2015 Spring
– Foundations of Computer Science, Stony Brook University	2014 Fall
– Advanced C++ Language and Programming, Harbin Institute of Technology	2009 Fall

Co-coach, ACM ICPC Team, Stony Brook University	2016, 2017

Problem Setter for various programming contests:

– Stony Brook University Local Programming Contest	2016, 2017
– ProgNova Multi-University Programming Contest	2016, 2017
– HIT Local Programming Contest	2011, 2012