Yu Chen | Curriculum Vitae

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Education

Rensselaer Polytechnic Institute — **Troy, NY**
Ph.D in Computer Science — Aug. 2015 - May. 2020 (expected)

The University of Michigan-Dearborn — **Dearborn, MI**
Exchange student in Computer & Information Science — Sep. 2014 - Dec. 2014

The University of Electronic Science and Technology of China — **Chengdu, China**
B.Eng. in Communication Engineering — Sep. 2011 - Jul. 2015

Honors & Awards

Second Place at the 2016 DataThon
Rensselaer Polytechnic Institute — Apr. 2016

The First-Class People's Scholarship
The University of Electronic Science and Technology of China — 2012 - 2013 & 2013 - 2014

National Scholarship
Ministry of Education of China, Top 1.6 % — 2011 - 2012

Research & Work Experience

Graduate Teaching Assistant — **Troy, NY**
Aug. 2015 - Present

Python Web Developer at Microoh — **Chengdu, China**
Mar. 2015 - May. 2015

- Responsible for the background computing of LPS 2.0 which was a personalized learning management system.

Research Assistant in the Virtual Engineering Laboratory, UM-Dearborn — **Dearborn, MI**
Advisor: Prof. Jie Shen — Sep. 2014 - Dec. 2014

Data mining of large-scale discrete data sets with a focus on 3D surface denoising.

- Applied data mining and machine learning algorithms on large-scale data sets.
- Collected and compared existing approaches of 3D surface denoising.
- Designed and implemented a voxel-based fast surface propagation method to remove non-isolated and sharp featured surface outliers.
- More information is here.

Research Assistant in the Web Sciences Center, UESTC — **Chengdu, China**
Advisor: Prof. Tao Zhou — May. 2014 - Jul. 2014

Name: Yu Chen
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Empirical analysis and recommendation algorithms design in social network area.

- Analyzed a mass of data provided by multiple social network websites.
- Found interesting patterns of human behaviors with temporal dynamics in social networks.
- Designed and implemented novel and effective recommendation algorithms.
- More information is here.

Projects

K-competitive autoencoder for text analytics **Troy, NY**

Rensselaer Polytechnic Institute, Advisor: Prof. Mohammed J. Zaki Nov. 2016 - Feb. 2017

Designed the k-competitive autoencoder, where we introduced the ideas of competitive learning into the regular autoencoder. This model overall achieved the state of the art performance across various corpora in several downstream tasks like document classification, regression and retrieval. It was implemented in Keras and Tensorflow.

Unsupervised cluster labeling **Troy, NY**

Rensselaer Polytechnic Institute, Advisor: Prof. Heng Ji Oct. 2016 - Dec. 2016

Designed an unsupervised algorithm which can automatically pick descriptive, human-readable labels for the clusters of entities by learning to predict hyper-hyponym relationships via word embeddings.

Evaluating countries and products in international trade **Troy, NY**

Rensselaer Polytechnic Institute Apr. 2016

Designed an evolutionary bipartite graph approach to evaluate which countries do better and which products are more valuable in international trade. More information is here.

Predicting whose papers are accepted the most **Troy, NY**

Rensselaer Polytechnic Institute, Advisor: Prof. Mohammed J. Zaki Mar. 2016 - May. 2016

Designed graph mining techniques (e.g., multi-layered pagerank) to rank research institutes based on their predicted number of accepted papers in the incoming top conferences.

Finding email correspondents in online social networks. **Chengdu, China**

The University of Electronic Science and Technology of China Mar. 2015 - May. 2015

Designed an effective algorithm which can help find email correspondents in online social networks by leveraging user profiles and network structures. More information is here.

Publications

[1] Yu Chen, Hao Chen, Jie Shen. Fast Voxel-based Surface Propagation Method for Outlier Removal. In Proceedings of the 13th International CAD Conference, Vancouver, BC, Canada. June 27-29, 2016.

Skills

Research: Data Mining, Machine Learning, Natural Language Processing

Programming: Python = C/C++ > Matlab > Java = R = Scheme = JavaScript = PHP

Software: Linux, Database, AWS, Keras, Tensorflow

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