

ZECHENG ZHANG

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EDUCATION

Stanford University September 2019 - April 2021
M.S. in Computer Science, information management and analytics track **GPA: 3.99 / 4.0**

University of Illinois at Urbana-Champaign August 2015 - May 2019
B.S. in Computer Science, minor in Statistics **GPA: 3.99 / 4.0**
Honors: James Scholar and Bronze Tablet

SKILLS

Coding Languages: Python, Java, JavaScript, Scala, Go, C, C++, Bash Script, R and Haskell
Machine Learning and Data: PyTorch, scikit-learn, Pandas, Spark, Hadoop, SQL, Neo4j, Firebase, PyTorch Geometric and CUDA
Website Development: CSS, HTML, Rest API, GraphQL, D3.js, React.js, React Native, Node.js, Django and Express.js

RESEARCHES

Graduate Research Assistant at Stanford SNAP January 2020 - April 2021
An open-source Python library, [DeepSNAP](#), which assists deep learning on graphs

- Developed and designed the library that offers easy-to-use manipulation, pipeline and neural layers for graph neural networks
- Experiments on various graph tasks such as node classification, link prediction, and graph classification by using the DeepSNAP

Undergraduate Research Assistant at UIUC LPNA March 2017 - May 2019
A parallel numerical library for tensor computation, the [Cyclops Tensor Framework \(CTF\)](#)

- CTF is a library that can run numerical and tensor algorithms on supercomputers
- Worked on C++ level data types, Python interface design, numerical functions, and experiments on tensor completion
- Paper: *Enabling Distributed-memory Tensor Completion in Python using New Sparse Tensor Kernels*

EXPERIENCES

ServiceNow, Software Engineer Intern, Santa Clara, CA June 2020 - September 2020
ML and database applications on the ServiceNow platform

- Developed an application that predicts default values of ServiceNow data table entries by using NLP and ML models
- Led a group and prototyped an improvement on the ServiceNow articles search functionality by using BERT and knowledge graphs with a new design of graph-like search result visualization

ServiceNow, Software Engineer Intern, Santa Clara, CA July 2019 - September 2019
NLP and front-end products on the ServiceNow platform

- Designed and developed a product, in both backend and frontend, for the conference use that the audience can type in real-time questions where similar questions and unfriendly words will be filtered by NLP models. The product provides different interfaces and useful functionalities for not only the speaker/admin but also the audience
- Constructed a flexible sentiment analysis module for the ServiceNow platform by using google cloud

PROJECTS

Transform Dataframe for Machine Learning (TDML)
• TDML is an open-source Python library that connects dataframe packages (Pandas and PySpark) with machine learning packages (NumPy, PyTorch and Tensorflow), containing functionalities such as automatic dataframe transformation and dataset splitting

GraphTorch

- A graph analysis website that contains functionalities including the graph structural analysis and PDF generating for analysis result

PUBLICATIONS

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- Yuxin Xiao*, **Zecheng Zhang***, Carl Yang and Chengxiang Zhai. *Non-local Attention Learning on Large Heterogeneous Information Networks*. In the 2019 IEEE International Conference on Big Data (IEEE BigData 2019)
 - Huajie Shao, Dachun Sun, Jiahao Wu, **Zecheng Zhang**, Aston Zhang, Shuochao Yao, Shenzhong Liu, Tianshi Wang, Chao Zhang and Tarek Abdelzaher. *paper2repo: GitHub Repository Recommendation for Academic Papers*. In the Web Conference 2020 (WWW 2020)

SELECTED COURSES

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- Stanford University: Machine Learning, ML with Graphs, Data Management and Data Systems, Principles of Data-intensive Systems, CNNs for Visual Recognition, Mining Massive Data Sets and Parallel Programming
 - UIUC: System Programming, Data Mining, Computer Architecture, Deep Learning and Numerical Analysis

TEACHINGS

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- Stanford University: [CS224W Machine Learning with Graphs](#) (Winter 2021)
 - University of Illinois at Urbana-Champaign: [CS498RK The Art of Web Programming](#) (Spring 2019), [CS446 Machine Learning](#) (Fall 2018), and [CS374 Algorithms and Models of Computation](#) (Spring 2018)