



Siyuan Zhang  
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# Siyuan Zhang

MSCS Student @ UIUC

**Objective** Working on both theoretical and empirical reinforcement learning and computer vision, for few-shot and sample efficient learning.

## Education

**University of Illinois at Urbana-Champaign**

M.S. in Computer Science, 2019 - 2021

**University of Illinois at Urbana-Champaign**

B.S. in Computer Science, 2015 - 2019

## Publications

- Zecheng Zhang, Xiaoxiao Wu, Naijing Zhang, **Siyuan Zhang**, Edgar Solomonik. Enabling Distributed-Memory Tensor Completion in Python using New Sparse Tensor Kernels. (arXiv).

### Preprints

- **Siyuan Zhang**, Nan Jiang. Towards Hyperparameter-free Policy Selection for Offline Reinforcement Learning. (submitted to NeurIPS 2021)
- **Siyuan Zhang**. Factoring Metrics into Panoramic Topological Memory for Navigation.
- **Siyuan Zhang**. Enhance Spectral Learning By Finding Better Transformation Matrices Using Objectives.
- **Siyuan Zhang**, Xiaoyan Wang, Beichen Zhang. Visual Scene Graph Generation.
- Xiaoyan Wang, **Siyuan Zhang**, Xiaodan Du. Multiple Choice Question Answering with External Facts.

## Selected Coursework

- Statistical Learning Theory, Statistical Reinforcement Learning
- Robotic Learning, Adversarial Machine Learning
- Machine Learning in NLP, Data Mining and Principles
- Computer Vision, Information Retrieval, Machine Learning
- Virtual Reality, Database, Distributed Systems, Numerical Analysis

## Experience

### May 2019 - Aug 2019, Internship

#### Datavisor, Mountain View

- Worked on automated FN tuning for large unsupervised fraud detection model.
- Developed and implemented algorithms using cluster dimension analysis to propose novel and existing feature.
- Tackled feature hyper-parameter tuning automation and all code landed in production.

### May 2018 - Aug 2018, Internship

#### Datavisor, Mountain View

- Worked on FP tuning tools for internal analysis and model optimization.
- Developed 3 end-to-end internal-tools allowing efficient FP cause finding and automated tuning.
- Researched on FN tuning methodology and strategy.

## Teaching

Teaching Assistant at UIUC

- Numerical Method(CS 357), Spring 2021, Fall 2020, Spring 2020, Fall 2019
- Database Systems(CS 411), Summer 2020

## Skills

- Proficient: Java, Python, C++
- Experienced: C, SQL, Ruby, Scala
- Tools: Pytorch, TensorFlow, Cassandra, MongoDB, Neo4j, Kafka, Spark,  $\LaTeX$ , Matlab