

Shuze Liu

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Education

University of Virginia

Aug. 2020 - Ongoing

Ph.D. Student, Computer Science GPA: 4.0/4.0

Advisor: Prof. Haifeng Xu

Yale University

May 2020

M.S. , Computer Science GPA: 3.88/4.0

Rensselaer Polytechnic Institute (RPI)

May 2019

B.S. , Computer Science GPA: 4.0/4.0

Publication

- **Shuze Liu**, Weiran Shen, Haifeng Xu. Optimal Pricing of Information. **In Proceedings of 22th ACM Conference on Economics and Computation (EC), 2021.** [PDF] [Link]
- **Shuze Liu**, Farhad Mohsin, Oshani Seneviratne, Lirong Xia. Strengthening Smart Contracts to Handle Unexpected Situations. In Proceedings of IEEE International Conference on Decentralized Applications and Infrastructures, 2019. [PDF] [Link]

Research

Optimal Pricing of Information

May 2020 – Aug. 2021

- Designed the revenue-optimal information selling mechanism for the seller in closed-form.
- Formally introduced the concept of mixed virtual value and proposed its ironing properties.
- Bounded optimal revenue approximation of single price mechanisms.

Selling Data Points

June 2021 – Ongoing

- Characterize the optimal mechanism in the setting where a seller sequentially sells multiple data points and the value of data points is unknown to the seller.

Selling Information through Learning

August 2021 – Ongoing

- Design type-prior independent mechanisms achieving near optimal revenue approximation in information selling by learning from samples.
- Generalize such mechanisms to be independent of both buyer distribution and information distribution.

Teaching

Graduate Teaching Assistant: Artificial Intelligence

Undergraduate Teaching Assistant: Introduction to Algorithms, Introduction to Logic

Industrial Experience

Alibaba Group, DAMO Academy

June 2019 – Aug. 2019

Algorithm Engineer Intern

Hangzhou, China

- Researched on convolutional neural networks.
- Developed APIs for the "City Brain" project.

Skills

- Programming Languages: Python, C/C++, Java, Javascript, SQL, Pascal, Prolog, Scheme.
- Tools: TensorFlow, MxNet, Pytorch, Hyperledger Composer, LaTeX, Hugo.