

Jibang Wu

Curriculum Vitae

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🌐 <https://wujibang.com>

Research Interest

- Computational Game Theory
- Online Learning & Optimization
- Algorithms Design
- Information Retrieval
- Recommendation System

My current research lies at the interface between game theory, learning theory and optimization, with the primary focus on modeling and solving multi-agent decision-making problems under uncertainty. More recently, I am especially curious at the sparks of intelligence from LLMs. I am looking forward to developing practical techniques to 1) enhance their strategic intelligence and reasoning skills, 2) align their economic incentives with users, advertisers and data providers.

Education

- 2022 – **University of Chicago (Transfer)**, Chicago, IL, USA
- 2019 – 2022 **University of Virginia**, Charlottesville, VA, USA
Ph.D. in Computer Science, advised by Prof. Haifeng Xu [↗](#)
- 2018 – 2019 **University of Virginia**, Charlottesville, VA, USA
M.S. in Computer Science, advised by Prof. Hongning Wang [↗](#)
Thesis: *Temporal Attention Mechanism for Sequential Recommendation* [↗](#)
- 2015 – 2018 **University of Virginia**, Charlottesville, VA, USA
B.A. in Computer Science
Echols Scholar, Dean's List in College of Arts & Science

Publications

- Preprint *An Isotonic Mechanism for Overlapping Ownership.* [↗](#)
Jibang Wu (✉) Haifeng Xu (✉) Yifan Guo (✉) Weijie Su.
- Preprint *Contractual Online Learning: Pulling Arms with Invisible Hands.*
Jibang Wu, Siyu Chen, Huazheng Wang, Mengdi Wang, Haifeng Xu.
- Preprint *Optimal Coordination in Generalized Principal-Agent Problems.* [↗](#)
(α - β) Jiarui Gan, Minbiao Han, **Jibang Wu**, Haifeng Xu.
- Preprint *Auctioning with Strategically Reticent Bidders.* [↗](#)
Jibang Wu, Ashwinkumar Badanidiyuru, Haifeng Xu.
- EC 2023 *Robust Stackelberg Equilibria.* [↗](#)
(α - β) Jiarui Gan, Minbiao Han, **Jibang Wu**, Haifeng Xu.
- ICML 2023 *Learning to Incentivize Information Acquisition.* [↗](#)
Siyu Chen, **Jibang Wu**, Yifan Wu, Zhuoran Yang.
- NeurIPS 2022 *Inverse Game Theory for Stackelberg Games: the Blessing of Bounded Rationality* [↗](#)
Jibang Wu, Weiran Shen, Fei Fang, Haifeng Xu.
- EC 2022 *Markov Persuasion Processes and Reinforcement Learning.* [↗](#)
Jibang Wu, Zixuan Zhang, Zhe Feng, Zhaoran Wang, Zhuoran Yang, Michael I. Jordan, Haifeng Xu.

- COLT 2022 *Multi-Agent Learning for Iterative Dominance Elimination.* [↗](#)
(α - β) **Jibang Wu**, Haifeng Xu, Fan Yao.
- NeurIPS 2021 *Least Square Calibration for Peer Reviews.* [↗](#)
(α - β) Sijun Tan, **Jibang Wu**, Xiaohui Bei, Haifeng Xu.
- SIGIR 2021 *Category-aware Collaborative Sequential Recommendation.* [↗](#)
Cai, Renqin, **Jibang Wu**, Aidan San, Chong Wang, and Hongning Wang.
- WWW 2020 *Déjà vu: A Contextualized Temporal Attention Mechanism for Sequential Recommendation.* [↗](#)
Jibang Wu, Renqin Cai, Hongning Wang.

Selected Awards

- 2021 **Outstanding Graduate Teaching Assistant Award**, *University of Virginia.*
- 2018 **Louis T. Rader Undergraduate Research Award**, *University of Virginia.*
- 2018 **1st Place**, *2018 CyberWatch National CCDC.*
- 2018 **Finalist, \$1500**, *Hack.UVA—Major League Hacking Demo* [↗](#).
- 2017 **Silver Medal**, *2017 ACM-ICPC Mid-Atlantic Regional.*
- 2017 **Finalist, \$1500**, *Hack.UVA—Major League Hacking Demo* [↗](#).
- 2016 **1st place**, *Microsoft College Coding Challenge at University of Virginia.*
- 2016 **Best Data Visualization**, *DataFest@UVA—American Statistical Association.*

Teaching Experience

- 2021 Spring **CS 6501 Learning and Game Theory**, *University of Virginia.*
Teaching Assistant for Prof. Haifeng Xu
- 2020 Fall **CS 6161 Design & Analysis of Algorithm**, *University of Virginia.*
Teaching Assistant for Prof. Haifeng Xu
- 2018 Fall **CS 6316 Machine Learning**, *University of Virginia.*
Teaching Assistant for Prof. Rich Nguyen
- 2018 Fall **CS 6501 Information Retrieval**, *University of Virginia.*
Teaching Assistant for Prof. Hongning Wang
- 2017 Spring - **CS 3330 Computer Architecture**, *University of Virginia.*
2018 Fall Teaching Assistant for Prof. Charles Reiss
- 2016 Fall - **Math Tutoring Center**, *University of Virginia.*
- 2017 Spring Calculus I, II & III, Probability, Linear Algebra & Complex Analysis

Work Experience

- 2018 Summer **Jump Trading LLC.**, *Algorithmic Trader Intern*, Chicago, IL, USA.
Latency Management team
- Built a low latency order gateway to FIX protocol based cryptocurrency exchanges.
 - Optimized columnar database for high-throughput query tasks under parallel filesystem.
- 2017 Summer **Uber Technologies Inc.**, *Software Engineer Intern*, San Francisco, CA, USA.
Restaurant Experience team
- Maintained the Restaurant Dashboard and Restaurant Merchant Portal project supporting 10+ tablet models used by 6000+ restaurants from 100+ cities.
 - Developed restaurant sentiment analysis pipeline to integrate user feedback through in-app communication API to increase effective restaurant feedback rate.
- 2017 Spring **Tandem Medical LLC.**, *Head Developer*, Charlottesville, VA, USA.
Co-founded a startup [↗](#) that envisions task/ticket-based internal hospital communications, received \$5000 funding from UVa iLab

Skills

Programming **C/C++** ▪ **Javascript** ▪ **Python** ▪ Golang ▪ Assembly ▪ Matlab ▪ Java
HPC **PyTorch** ▪ **Tensorflow** ▪ Numpy ▪ OpenGL ▪ CUDA ▪ Pthreads ▪ MPI ▪ Gurobi ▪ NCL
Web **React/Redux** ▪ **Node.js** ▪ Django ▪ JQuery ▪ HTML ▪ CSS
Mobile **React Native** ▪ **Swift** ▪ Objective-C
Database **PostgreSQL** ▪ MySQL ▪ MongoDB ▪ Cassandra
Tools **OSX/Linux** ▪ **Git** ▪ Docker ▪ Elasticsearch ▪ Hadoop ▪ Redis ▪ Slurm
Languages English ▪ Mandarin

Scholarships

2022 **Travel Grant**, *DeepMind Student Grant for COLT 2022.*
2020 **Travel Grant**, *The Web Conference (WWW) 2020.*
2019 **Computer Science Department Doctoral Fellowship**, *University of Virginia.*
2018 **Computer Science Academic Excellence Fellowship**, *University of Virginia.*
2017 **Scholarship**, *Vidya Balvantrai Shelat Fund.*
2017 **Scholarship Attendee**, *Google I/O 17.*
2017 **Scholarship Attendee**, *Facebook F8 17.*
2016 **Tom Tom Scholar**, *Charlottesville Founders Summit 2016.*
2016 **Scholarship Attendee**, *Apple WWDC16.*
2015 **AP Scholar with Distinction**, *CollegeBoard.*

Services

Program Committee 2022: AAAI, GameSec, IJCAI
Reviewer 2023: STOC, AI4SG
2022: ICLR, ALT, IJCAI, ICML, EC, AIJ
2021: WINE, STOC, SAGT, NeurIPS, IJCAI, AAMAS, AAAI, EC
2020: MOR, AAMAS, AI4SG, IJCAI, KDD, SIGIR
Volunteer Code for Charlottesville, Student Minister for UChicago CS