

# YANG CHEN

Ph.D. in Computer Science – The University of Auckland – Auckland, New Zealand

NZ: (+64) 022-5250016 / CN: (+86) 185-1182-2753

✉ yang.chen@auckland.ac.nz • 🌐 www.yangchen.info • 🕒 PolynomialTime

## EDUCATION

---

**The University of Auckland** Auckland, New Zealand  
*Ph.D. Candidate, School of Computer Science* *November 2018 – October 2021 (expected)*

- Supervisors: Jiamou Liu and Bakh Khoussainov

**The University of Auckland** Auckland, New Zealand  
*First Class Honours in Computer Science* *July 2017 – July 2018*

- Dissertation: *Network Building: Methodological Foundations and Algorithmic Analysis*

**Beijing Institute of Technology** Beijing, China  
*Bsc in Computer Science & Technology* *August 2013 – June 2017*

## INTERNSHIP

---

**Alibaba DAMO Academy** Beijing, China  
*Research Intern* *September 2020 – January 2021*

- I served as a principal contributor and programmer of a research project, where I proposed a novel framework that combines deep learning and bandit techniques to enhance the efficiency and accuracy of the recommender system. The paper is going to be published and a prototype is ready to be deployed to support online business.

## RESEARCH INTERESTS

---

My main research interest lies in (deep) reinforcement learning in multi-agent systems. I aim to solve issues modelled as multi-agent systems from the learning and game-theoretical perspective. Along this line, my ultimate goal is to reinforce the insights into rules of applying reinforcement learning in conjunction with game theory. Very recently, my focus moves to reinforcement learning in games with tons of agents. I attempt to explore exciting results in such scenarios through combining reinforcement learning and the mean field theory.

## SELECTED PUBLICATIONS

---

### PREPRINTS

- **Maximum Entropy Inverse Reinforcement Learning for Mean Field Games**  
Yang Chen, Jiamou Liu, Bakhadyr Khousainov. **arXiv 2021.**

### CONFERENCES

- **Social Capital Games as A Framework for Network Formation**  
Yang Chen, Jiamou Liu. *The 2020 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining.* **ASONAM 2020.**

- **Social Structure Emergence: A Multi-agent Reinforcement Learning Framework for Relationship Building**  
Yang Chen, Jiamou Liu, He Zhao, Hongyi Su. *The 19th International Conference on Autonomous Agents and Multi-agent Systems*. **AAMAS 2020**. (Core A\*, CCF B)
- **Becoming Gatekeepers Together with Allies: Collaborative Brokerage over Social Networks**  
Yang Chen, Jiamou Liu. *The 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining*. **ASONAM 2019**.
- **A Reinforcement Learning Approach to Gaining Social Capital with Partial Observation**  
He Zhao, Hongyi Su, **Yang Chen (contact)**, Jiamou Liu, Hong Zheng, Bo Yan. *The 16th Pacific Rim International Conference on Artificial Intelligence*. **PRICAI 2019**. (Core A, CCF C)
- **Dynamic Relationship Building: Exploitation Versus Exploration on a Social Network**  
Bo Yan, **Yang Chen**, Jiamou Liu. *The 18th International Conference on Web Information Systems Engineering*. **WISE 2017**. (Core A, CCF C)

## WORKSHOPS

- **Distributed Community Detection over Blockchain Networks Based on Structural Entropy**  
Yang Chen, Jiamou Liu. *The 2019 ACM International Symposium on Blockchain and Secure Critical Infrastructure*. **BSCI 2019**. (**Best Paper Award**)

## HONOURS & AWARDS

---

<b>Google Global PhD Fellowship Nomination (Australia &amp; New Zealand)</b>	August 2020
<b>Best Paper Award, BSCI 2019.</b>	July 2019
<b>Summer Scholarship Funding from PDH Research Partnership.</b>	November 2018
<b>University of Auckland Doctoral Scholarship (NZD \$85000).</b>	October 2018