

# Zhiming Huang

## EDUCATION

University of Victoria, BC, Canada

- Ph.D. in Computer Science
- Advisor: Dr. Jianping Pan
- M.Sc. in Computer Science
- Advisor: Dr. Jianping Pan

Since Sep 2020

Sep 2018 – Aug 2020

Northwestern Polytechnical University, Shaanxi, China

- B.Eng. in Communication Engineering

Sep 2014 – Jun 2018

## RESEARCH INTERESTS

- **Wireless Communications and Computer Networks**  
Hetnet selection, wireless caching, routing and end-to-end congestion control.
- **Learning and Optimization**  
Game-theoretic online learning, multi-armed bandit problems.

## PUBLICATIONS

### JOURNAL PUBLICATIONS

- [1] TSOR: Thompson Sampling-based Opportunistic Routing  
**Z. Huang**, Y. Xu, J. Pan  
*IEEE Transactions on Wireless Communications (TWC)*, May 2021.
- [2] Caching by User Preference with Delayed Feedback for Heterogeneous Cellular Networks  
**Z. Huang**, B. Hu, J. Pan  
*IEEE Transactions on Wireless Communications (TWC)*, vol. 20, no. 3, pp. 1655-1667, Mar 2021.
- [3] EQRC: A Secure QR Code-based E-coupon Framework Supporting Online and Offline Transactions  
R. Liu, J. Song, **Z. Huang**, J. Pan  
*Journal of Computer Security (JCS)*, vol. 28, no. 5, pp. 577-605, Sep 2020.
- [4] A Framework of Multipath Clustering based on Space Transformed Fuzzy c-Means and Data Fusion for Radio Channel Modeling  
**Z. Huang**, R. Zhang, J. Pan, Y. Jiang, and D. Zhai  
*IEEE Transactions on Vehicular Technology (TVT)*, vol. 69, no. 1, pp 4-15, Jan 2020.
- [5] Uncertainty Measurement with Belief Entropy on Interference Effect in Quantum-Like Bayesian Networks  
**Z. Huang**, L. Yang, and W. Jiang  
*Applied Mathematics and Computation (AMC)*, vol. 347, pp. 417-428, Nov 2018.
- [6] A New Method to Evaluate Risk in Failure Mode and Effects Analysis under Fuzzy Information  
**Z. Huang**, W. Jiang, and Y. Tang  
*Soft Computing (SOCO)*, vol. 22, no. 14, pp. 4779-4787, Jul 2017.

### CONFERENCE PUBLICATIONS

- [1] A Near-optimal High-probability Swap-Regret Upper Bound for Multi-agent Bandits in Unknown General-sum Games  
**Z. Huang**, and J. Pan  
*In Proc. Uncertainty of Artificial Intelligence (UAI)*, Aug 2023.
- [2] End-to-end Congestion Control as Learning for Unknown Games  
**Z. Huang**, K. Liu and J. Pan  
*In Proc. IEEE International Conference on Distributed Computing Systems (ICDCS)*, Jul 2023.
- [3] Poster: Multi-agent Combinatorial Bandits with Moving Arms (Best Poster Award)  
**Z. Huang**, B. Hu, and J. Pan  
*In Proc. IEEE International Conference on Distributed Computing Systems (ICDCS)*, Jul 2021.
- [4] Intelligent Caching Algorithms in Heterogeneous Wireless Networks with Uncertainty  
B. Hu, Y. Chen, **Z. Huang**, N. Mehta, and J. Pan  
*In Proc. IEEE International Conference on Distributed Computing Systems (ICDCS)*, Jul 2019.
- [5] Distributed Learning of Unknown Games for HetNet Selection  
**Z. Huang**, and J. Pan  
*In Preparation*, Jul 2022

|                                      |  |                     |
|--------------------------------------|--|---------------------|
| <b>TEACHING<br/>EXPERIENCE</b>       | ▪ <b>TA Leader, Lab and Tutorial Instructor for CSC361</b>   | Sep 2022 – Apr 2023 |
|                                      | ▪ <b>Lab Instructor for CSC503</b>   | May 2022 – Aug 2022 |
|                                      | ▪ <b>Tutorial Instructor for CSC361</b>  | Sep 2021 – Aug 2022 |
|                                      | ▪ <b>Tutorial Instructor for CSC361</b>  | Sep 2021 – Apr 2022 |
|                                      | ▪ <b>Assistant in CSC361 Lab Redesign and Development</b>  | Jul 2020 – Aug 2020 |
|                                      | ▪ <b>Teaching Assistant in CSC361: Computer Communications and Networks</b>  | Sep 2019 – May 2020 |
|                                      | ▪ <b>Consultant in UVic Computer Science Assistance Centre</b>   | Jan 2019 – Aug 2019 |
| <b>PROFESSIONAL<br/>ACTIVITIES</b>   | <b>IEEE VICTORIA SECTION WEBMASTER</b>   |                     |
|                                      | ▪ Maintain the official website for IEEE Victoria section.   | May 2023            |
|                                      | <b>IEEE DAY REGION 7 AMBASSADOR</b>  |                     |
|                                      | ▪ Organize the IEEE Day activities for IEEE Canada region.   | Oct 2021            |
| <b>AWARDS &amp;<br/>SCHOLARSHIPS</b> | ▪ <b>Melva J. Hanson Graduate Scholarship</b>  | Dec 2022            |
|                                      | For outstanding academic performance during graduate study.  |                     |
|                                      | ▪ <b>M.A. &amp; D.E. Breckenridge Graduate Awards</b>  | Dec 2022            |
|                                      | For outstanding academic performance during graduate study.  |                     |
|                                      | ▪ <b>UVic Department Graduate Award</b>  | Jul 2022            |
|                                      | For outstanding academic performance during graduate study.  |                     |
|                                      | ▪ <b>IEEE ICDCS 2021 Best Poster Award</b>   | May 2021            |
|                                      | For the distinguished poster work and presentation at IEEE ICDCS 2021.   |                     |
|                                      | ▪ <b>IEEE ICDCS 2021 Student Registration Award</b>  | May 2021            |
|                                      | For graduate students to participate in ICDCS 2021.  |                     |
|                                      | ▪ <b>John and Myrtle Tilley Graduate Scholarship</b>   | Dec 2020            |
|                                      | For outstanding academic performance during graduate study.  |                     |
|                                      | ▪ <b>Robert W. Ford Graduate Scholarship</b>   | Dec 2020            |
|                                      | For outstanding academic performance during graduate study.  |                     |
|                                      | ▪ <b>Howard E. Petch Research Scholarship</b>  | Dec 2020            |
|                                      | For the outstanding research performance during graduate study.  |                     |
|                                      | ▪ <b>UVic Graduate Fellowship</b>  | Sep 2020            |
|                                      | For outstanding academic performance during graduate study.  |                     |
|                                      | ▪ <b>IEEE Pacific Rim Wu-Sheng Lu Graduate Scholarship</b>   | Nov 2019            |
|                                      | For excellent academic performance.  |                     |
|                                      | ▪ <b>ICDCS 2019 Travel Grant Award</b>   | Jun 2019            |
|                                      | For graduate students and post-doctoral researchers to participate in ICDCS 2019.  |                     |
|                                      | ▪ <b>UVic Department Graduate Award</b>  | Jun 2019            |
|                                      | For outstanding academic performance during graduate study.  |                     |
|                                      | ▪ <b>Mitacs Graduate Fellowship</b>  | Sep 2018            |
|                                      | For former Globalink research interns who return to Canada for research-based graduate studies at eligible Mitacs academic partners.         |                     |
|                                      | ▪ <b>The Best Final Thesis Award</b>   | Jun 2018            |
|                                      | For the outstanding final thesis, top 5% undergraduate awardees in the university.   |                     |
|                                      | ▪ <b>The Excellent Graduate Award</b>  | Jun 2018            |
|                                      | For outstanding academic performance during undergraduate study, top 5% in the university.   |                     |
|                                      | ▪ <b>Scholarship of Ministry of Industry and Information Technology of China</b>   | Oct 2017            |
|                                      | For outstanding performance in academic research, top 0.01% in the university.   |                     |
|                                      | ▪ <b>Scholarship of China Scholarship Council</b>  | Jun 2017            |
|                                      | Full-tuition scholarship with a stipend for an undergraduate research internship at UVic, one of 4 undergraduate awardees in the university. |                     |
|                                      | ▪ <b>Scholarship of Ministry of Industry and Information Technology of China</b>   | Oct 2016            |
|                                      | For outstanding performance in academic research, top 0.01% in the university.   |                     |