Fei Wang

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EDUCATION	**Hongyi Honor College, Wuhan University** Sep 2016 – Jun 2020

Hongyi Honor College, Wuhan University   Sep 2016 – Jun 2020
Bachelor of Engineering in Computer Science and Technology (with honors)
- Cumulative GPA: 3.80/4.00 (89.5/100)
- Rank: 4/34 (selected from 587 students in the School of Computer Science, Wuhan University)
- Relevant Courses: Computer Systems Fundamental, Software Engineering, Machine Learning, Principle of Computer Network and Communication, Application Design of Computer Networks

RESEARCH INTERESTS

The broad applications of machine learning in the management of computer networks and services
Networking and Communication: software-defined networking; datacenter networks
Machine Learning: deep learning; reinforcement learning

RESEARCH EXPERIENCE

Refining Congestion Control Online Using Deep Reinforcement Learning, Research Intern
The Edward S. Rogers Sr. Department of Electrical & Computer Engineering (ECE), University of Toronto
Advised by Prof. Baochun Li and Dr. Salma Emara   Feb 2020 – May 2020
- Built a RL congestion control environment with an asynchronous RL framework where the agent execution does not block the network sender
- Designed online training to speed up the convergence of the agent's behaviors after deployed in new network environment and improved its generalizability

Refining Congestion Control by Learning from the Expert, Research Intern
The Edward S. Rogers Sr. Department of Electrical & Computer Engineering (ECE), University of Toronto
Advised by Prof. Baochun Li and Dr. Salma Emara   Sep 2019 – Dec 2019
- Refined the expert control policy migrated from our target congestion control protocol in terms of code
- Redesigned the switching mechanism between the expert and the agent control policy, and enhanced the agent's learnability

Rethinking Congestion Control with Deep Reinforcement Learning, Undergraduate Research Assistant
School of Computer Science, Wuhan University
Advised by Prof. Yanjiao Chen   May 2018 – Jul 2019
- Employed deep reinforcement learning algorithms such as deep Q-network to generate congestion control policy
- Widely evaluated the designed scheme and state-of-the-art TCP variants on emulated and real networks via Mahimahi and Pantheon platforms

PUBLICATIONS

Zhenchang Xia, Yanjiao Chen, **Fei Wang**, Xudong Liao, Haiyan Hu, Chengye Ma, Jingzhi Zhang, Baochun Li, and Libing Wu, "Glider: Rethinking Congestion Control with Deep Reinforcement Learning," *in submission, 2019.*

LEADERSHIP & TEAMWORK

Independent Project in 2019 Interdisciplinary Contest in Modeling (ICM)   Jan 2019
Co-Leader, with two peer collaborators majoring in Mathematics and Finance
- Developed a model using cellular automata simulation and queuing theory to analyze and predict pedestrians' behaviors in emergency evacuation in the Louvre, considering the effect of crowd traits and architectural characteristics
- Proposed corresponding policy and procedural recommendations for effective emergency evacuation management of large, crowded buildings

Database System Design and Implementation   Oct 2018
Team member
- Implemented an elementary object deputy database system, including the storage management, compiler, execution components
- Created a mobile data query application with the designed database system using Android Studio

ADMINISTRATIVE EXPERIENCE

Counsellor Assistant, Hongyi Honor College Office, Wuhan University   Sep 2018 – Jun 2019
- Dealt with urgent matters for the college counsellors, and disseminated significant information to students
- Solicited student input, communicated criticisms, and suggested improvements to college

Vice-President, Hongyi Honor College Students' Union, Wuhan University   Jun 2017 – Jun 2018
- Conceived, planned, and staffed activities for both General Affairs Department and Art Department of Students' Union
- Chaired the meetings of the departments in charge, and prepared monthly reports to the university to help keep track of progress

SKILLS

Programming/Scripting Language: Python, Java, C, LaTeX, MATLAB, SQL, HTML, CSS
Platforms/Frameworks/Tools: Linux, Windows, TensorFlow, PyTorch, Git, MySQL

AWARDS & HONORS

- Outstanding Student Scholarship, Wuhan University   2016 - 2019
  For excellent academic achievements
- Excellent Student Cadre, Wuhan University   2018 & 2019
  For outstanding leadership and cooperation skills in student affairs
- Special Overseas Scholarship, Wuhan University   2018 & 2019
  For active participation in international academic exchanges