

PEIXIN WANG

PERSONAL INFORMATION

Room 327, No.3 SEIEE Buildings
Shanghai Jiao Tong University
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Date of Birth: July 13 1993
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RESEARCH INTEREST

I am mainly interested in formal methods, aiming at proving system correctness by rigorous mathematical approaches. Currently, my focus is on:

- Program Verification (e.g., probabilistic/concurrent programs)
- Model Checking

EDUCATION

Shanghai Jiao Tong University
Ph.D. in Computer Science

Sep. 2015 - Mar. 2021 (expected)
Advisors: Prof. Yuxi Fu and Dr. Hongfei Fu

East China Normal University
B.Sc. in Physics

Sep. 2011 - Jun. 2015

PUBLICATIONS

1. **[POPL'20]** Peixin Wang, Hongfei Fu, Krishnendu Chatterjee, Yuxin Deng and Ming Xu. “Proving expected sensitivity of probabilistic programs with randomized variable-dependent termination time.” *In Proceedings of the ACM on Programming Languages*, 4(*POPL*), 2020.
[\[Preprint\]](#) [\[Published version\]](#) [\[Artifact\]](#)
2. **[PLDI'19]** Peixin Wang, Hongfei Fu, Amir Kafshdar Goharshady, Krishnendu Chatterjee, Xudong Qin and Wenjun Shi. “Cost analysis of nondeterministic probabilistic programs.” *In Proceedings of the 40th ACM SIGPLAN Conference on Programming Language Design and Implementation*, 2019.
[\[Preprint\]](#) [\[Published version\]](#) [\[Artifact\]](#)

WORKING PAPERS

1. Peixin Wang, “Tail-bound cost analysis over nondeterministic probabilistic programs” (Submitted)
2. “Automated approaches for deriving parameters in differential privacy” (In preparation)
3. “Infinite-state concurrent object verification” (In preparation)

ACADEMIC ACTIVITIES

- Artifact Evaluation Committee – Computer-Aided Verification ([CAV'21](#))
- Artifact Evaluation Committee – Principles of Programming Languages ([POPL'21](#))
- Volunteer for [BASICS Summer School](#) 2016, 2017, 2018, 2019

- Postdoctoral Innovation Forum, Pengcheng Laboratory, Shenzhen, China, 2019 (invited)

INVITED TALKS

1. “Proving expected sensitivity of probabilistic programs with randomized variable-dependent termination time”, Conference Talk, New Orleans, LA, USA, 2020.
2. “Cost analysis of nondeterministic probabilistic programs”, Conference Talk, Phoenix, AZ, USA, 2019.

TEACHING ASSISTANTS

- Discrete Mathematics, Fall 2020
- Foundations of Programming Languages, Spring 2020
- Discrete Mathematics, Fall 2019
- Mathematical Foundations of Computer Science, Spring 2019
- Discrete Mathematics, Fall 2018
- Computability Theory, Fall 2017

HONORS AND AWARDS

First Prize of the 1st Excellent Doctoral Forum by John Hopcroft Center at Shanghai Jiao Tong University	2020
Guorui Scholarship by No.14 Institute of Electronics, China	2019
Excellent Academic Scholarship (third-class) at East China Normal University	2014
Third Prize of the 8th SAIC Education Cup, Shanghai	2014
Outstanding Project Award of Summer Social Practice at East China Normal University	2013
Third Prize of the 4th Physics Competition at East China Normal University	2013

GRANTS

1. National Natural Science Foundation of China (Grant No.61872142) (key member), “On parameterized high order process calculus”, 2019.1 - 2022.12
2. National Natural Science Foundation of China (Grant No.61802254) (key member), “Verification for Probabilistic Programs”, 2019.1 - 2021.12

OTHERS

- Volunteer for “Love Under the Blue Sky” (Jan. 2014): Street Fundraising Activities
- Team Leader of Science Store at East China Normal University (2013): publicizing scientific knowledge in life.
- Member of the Student Association at Department of Physics at East China Normal University (Sep. 2012 - Jun. 2013): collecting students’s feedbacks and organizing the selection meeting for over 300 students.