

XIN QIN

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ACADEMIC AND RESEARCH EMPLOYMENT

California State University, Long Beach (CSULB)
Assistant Professor, CECS

Long Beach, CA, USA
Aug 2024 - Present

EDUCATION

University of Southern California (USC)
Ph.D. in Computer Science

Los Angeles, CA, USA
Aug 2018 - May 2024

UC Berkeley
Visiting Student in EECS

Berkeley, CA, USA
Aug 2017 - May 2018

University of Chicago
Summer School Student

Chicago, IL, USA
Jul 2015 - Aug 2015

ShanghaiTech University
B.S. in Computer Science

Shanghai, China
Sep 2014 - Jul 2018

PUBLICATIONS

1. Sheryl Paul, Anand Balakrishnan, **Xin Qin**, Jyotirmoy V. Deshmukh, “Statistical Verification and Risk Estimation of Cyber-Physical Systems using Surrogate Models and Conformal Inference”, International Conference on Formal Modeling and Analysis of Timed Systems (FORMATS), 2024.
2. **Xin Qin**, Yuan Xia, Aditya Zutshi, Chuchu Fan, Jyotirmoy V. Deshmukh, “Multi-agent Path Finding for Timed Tasks using Evolutionary Games”, Transactions on Cyber-Physical Systems (TCPS), 2023.
3. **Xin Qin**, Navid Hashemi, Lars Lindemann, Jyotirmoy V. Deshmukh, “Conformance Testing for Stochastic Cyber-Physical Systems”, Formal Methods in Computer-Aided Design (FMCAD), 2023.
4. **Xin Qin**, Nikos Aréchiga, Andrew Best, Jyotirmoy Deshmukh, “Robust Testing for Cyber-Physical Systems using Reinforcement Learning”, ACM-IEEE International Symposium on Formal Methods and Models for System Design (MEMOCODE), 2023.
5. Lars Lindemann*, **Xin Qin***, Jyotirmoy V. Deshmukh, George J. Pappas, “Conformal Prediction for STL Runtime Verification”, ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS), 2023. *co-first author*.
6. Navid Hashemi, **Xin Qin**, Lars Lindemann, Jyotirmoy V. Deshmukh, “Data-Driven Reachability Analysis of Stochastic Dynamical Systems with Conformal Inference”, IEEE Conference on Decision and Control (CDC), 2023
7. Navid Hashemi, **Xin Qin**, Jyotirmoy V. Deshmukh, Georgios Fainekos, Bardh Hoxha, Danil Prokhorov, Tomoya Yamaguchi, “Risk-Awareness in Learning Neural Controllers for Temporal Logic Objectives”, American Control Conference (ACC), 2023.
8. **Xin Qin**, Yuan Xia, Aditya Zutshi, Chuchu Fan, Jyotirmoy V. Deshmukh, “Statistical Verification of Cyber-Physical Systems using Surrogate Models and Conformal Inference”, ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS), 2022.
9. Ezio Bartocci, Jyotirmoy Deshmukh, Felix Gigler, Cristinel Mateis, Eleonora Nesterini, Dejan Nickovic and **Xin Qin**, “Mining Shape Expressions with ShapeIt”, International Conference on Software Engineering and Formal Methods (SEFM), 2021. *Alphabetical order*.

10. Dejan Nickovic, **Xin Qin**, Thomas Ferrère, Cristinel Mateis, Jyotirmoy Deshmukh, “Specifying and Detecting Temporal Patterns with Shape Expressions”, International Journal on Software Tools for Technology Transfer (STTT), 2021.
11. **Xin Qin**, Jyotirmoy V. Deshmukh, “Clairvoyant Monitoring for Signal Temporal Logic Patterns”, International Conference on Formal Modeling and Analysis of Timed Systems (FORMATS), 2020.
12. Ezio Bartocci, Jyotirmoy Deshmukh, Felix Gigler, Cristinel Mateis, Dejan Nickovic and **Xin Qin**, “Mining Shape Expressions from Examples”, International Conference on Embedded Software (EMSOFT), 2020. *Alphabetical order.*
13. Dejan Nickovic, **Xin Qin**, Thomas Ferrère, Cristinel Mateis, Jyotirmoy Deshmukh, “Shape Expressions for Specifying and Extracting Signal Features”, International Conference on Runtime Verification (RV), 2019. **Best Paper Award**
14. Anand Balakrishnan, Aniruddh G. Puranic, **Xin Qin**, Adel Dokhanchi, Jyotirmoy V. Deshmukh, Heni Ben Amor, Georgios Fainekos, “Specifying and Evaluating Quality Metrics for Vision-Based Perception Systems”, IEEE Proceedings of Design, Automation and Test in Europe (DATE), 2019.
15. **Xin Qin**, Jyotirmoy V. Deshmukh, “Predictive monitoring for signal temporal logic with probabilistic guarantees: poster abstract”, Proceedings of the 22nd ACM International Conference on Hybrid Systems: Computation and Control (HSCC), 2019.
16. **Xin Qin**, Jyotirmoy V. Deshmukh, “Joint Probability Distribution of Prediction Errors of ARIMA”, Arxiv, 2019.

TEACHING

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|---|--------------------|
| University of Southern California <i>Teaching Assistant, Human Subject Research in Software Systems</i> | Spring 2023 |
| University of Southern California <i>Teaching Assistant, Autonomous Cyber-Physical Systems</i> | Fall 2022 |
| ShanghaiTech University <i>Teaching Assistant, Computer Architecture</i> | Spring 2017 |

SERVICES

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| Program Committee VMCAI, ICCPS Artifact Evaluation | 2024 |
| Program Committee HSCC Repeatability Evaluation | 2021 |
| Reviewer L4DC, HSCC poster, CDC | 2023 |
| Subreviewer IV | 2020 & 2021 |

INTERNSHIP

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| Toyota Research Institute <i>Simulation Team</i> Use reinforcement learning stress-test an autonomous vehicle in simulation. | Jun 2019 - Aug 2019 |
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HONORS AND AWARDS

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| Selected as one of the CPS Rising Stars . (Awarded to 34 out of 118 applications) | 2023 |
| Received an NSF student travel award (CPS-IoT Week) | 2023 |

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| Nominated for Microsoft Research Ada Lovelace Fellowship (3 students in CS dept.) | 2020 |
| Best Paper Award (International Conference on Runtime Verification) | 2019 |
| Outstanding Scholarship (ShanghaiTech) | 2016 - 2017 |
| Merit Student Award (ShanghaiTech) | 2014 & 2015 & 2016 |
| Third place in the Shanghai Students Sports Games, Taekwondo. (Held every four years.) | 2016 |
| Third place in the Shanghai Taekwondo Championship | 2015 |