

Email: tzuhan@msu.edu
Phone: (515) 441-6303
Web: tzuhancs.github.io
LinkedIn: [tzuhanhsu](#)

Tzu-Han Hsu



EDUCATION

- | | |
|---|--------------|
| Ph.D. Student in Computer Science Engineering
Michigan State University, East Lansing, MI, USA
<i>Advisor: Dr. Borzoo Bonakdarpour</i> | 2020–Present |
| Bachelor of Science in Computer Science
Iowa State University, Ames, IA, USA | 2016–2020 |
| Bachelor of Music in Piano Performance
Iowa State University, Ames, IA, USA | 2013–2017 |

RESEARCH INTERESTS

Formal Methods, Model Checking, Synthesis of Hyperproperties, Privacy and Information-Flow Security

RESEARCH EXPERIENCE

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|---|--------------|
| • Graduate Research Assistant <i>Michigan State University</i>
Formal Methods, Synthesis of Hyperproperties, Security and Privacy | 2020–Present |
| • Research Assistant <i>Iowa State University</i>
Model checking and Hyperproperties | 2019–2020 |

CONFERENCE PAPERS

1. [Tzu-Han Hsu](#), César Sánchez, Borzoo Bonakdarpour, “**Bounded Model Checking for Hyperproperties**” In *International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS’21)*, Luxembourg, Luxembourg.

PREPRINTS

1. [Tzu-Han Hsu](#), Yu Wang, Borzoo Bonakdarpour, Miroslav Pajic, “**Multi-Agent Path Planning with Hyperproperties**” (2020)

TEACHING EXPERIENCE

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|---|------------------------|
| • Graduate Teaching Assistant at Michigan State University
<i>Discrete Structures in Computer Science (CSE 260)</i> | Spring 2020 |
| • Teaching Assistant at Iowa State University
<i>Object-Oriented Programming (COM S 227)</i> | Spring 2018, Fall 2018 |

FELLOWSHIPS

- University Graduate Research Fellowship, *Michigan State University*, April 2020.

SCHOLARSHIPS AND AWARDS

- Nomination of Outstanding Senior of Department Award 2020
- Iowa State University College of Liberal Arts and Sciences Dean's List 2013–2020
- Future Leader Award, Issued by U.S. Ambassador to China Terry Branstad 2018
- Iowa State University International Student Ambassador Gold Level Scholarship Recipient 2013–2018
- Iowa State University Music Department Outstanding Student Scholarship Recipient 2013–2018
- Soloist Winner, Fort Dodge Orchestra Young Artists Concerto Competition 2015
- 1st Prize Winner, Iowa State University Symphony Orchestra Concerto Competition 2014
- State Winner, Music Teacher National Association (MTNA) Piano Competition 2014

LEADERSHIP AND VOLUNTEER EXPERIENCES

- The Society for Collegiate Leadership & Achievement 2016–2020
- Iowa State University Student Council, Department Representative 2017–2018
- Iowa Education without Borders (non-profit) Volunteer/Event Coordinator 2017–2018
- Iowa Youth Leadership Summer Camp Student Volunteer 2017–2018
- Iowa State University Annual K-12 Computational Thinking Competition 2020

INDUSTRIAL EXPERIENCE

- **Software Engineer Intern** 2019–2020
Worrell Medical Design Inc., Minneapolis, MN