

# Changjian (CJ) Zhang

[changjiz@andrew.cmu.edu](mailto:changjiz@andrew.cmu.edu)

<https://stevezhangbit.github.io/>

+1-412-519-6014

*My research mainly focuses on **software architecture**, **software quality**, and **formal methods**. My goal is to develop methodologies and tools to help developers to systematically design and build software systems that are **safe** and **robust**.*

## EDUCATION

**Carnegie Mellon University, School of Computer Science**

Ph.D. in Software Engineering

Advisors: Dr. Eunsuk Kang and Dr. David Garlan

Pittsburgh, PA

Aug 2019 – May 2025

**Carnegie Mellon University, School of Computer Science**

M.S. in Information Technology (Software Engineering)

Pittsburgh, PA

Aug 2017 - Aug 2018

**Beijing Institute of Technology**

B.S. in Computer Science and Technology

Beijing, China

Sept 2012 - Jun 2016

## EMPLOYMENT

**Carnegie Mellon University, Institute for Software Research**

Research Associate & Teaching Assistant

Pittsburgh, PA

Aug 2018 - Aug 2019

**Baidu Inc. Nuomi Movie Department**

SDE Intern

Beijing, China

Sept 2015 - Jan 2016

**Taoxue (Online Second-hand Market Startup)**

Co-Founder & Tech Lead

Beijing, China

May 2014 - Feb 2015

## PUBLICATIONS

**System Designs Robustification against Environmental Deviations. (Under submission)**

**Changjian Zhang**, Tarang Saluja, Romulo Meira Goes, Matthew Bolton, David Garlan, Eunsuk Kang. 2022.

**AlloyMax: bringing maximum satisfaction to relational specifications.**

**Changjian Zhang**, Ryan Wagner, Pedro Orvalho, David Garlan, Vasco Manquinho, Ruben Martins, and Eunsuk Kang. (ESEC/FSE 2021).

🏆 **ACM SIGSOFT Distinguished Paper Award.**

**Automated synthesis of minimal hardware exploits with Checkmate and MaxSAT Solver.**

**Changjian Zhang**, Ruben Martins, Marijn J.H. Heule, Eunsuk Kang. (MaxSAT Evaluation 2020).

**A behavioral notion of robustness for software systems.**

**Changjian Zhang**, David Garlan, and Eunsuk Kang. (ESEC/FSE 2020).

**Safe Run-time Reconfiguration for Event-driven Systems with Pub/Sub in ROS.**

**Changjian Zhang**, Eunsuk Kang, David Garlan. 2018.

## TEACHING

<b>17-214: Principles of Software Construction: Objects, Design, and Concurrency</b> <b>TA for 135 undergraduate and master's students</b> Graded homework assignments, developed and refined course materials, and held recitations and office hours.	Fall 2022
<b>17-640: IoT, Big Data, and ML: A Hands-on Approach</b> <b>TA/Co-Instructor for 31 master's students</b> Managed and maintained course equipment (IoT devices), graded lab assignments, and held recitations.	Summer 2019
<b>17-655: Architectures for Software Systems</b> <b>TA for 51 master's students</b> Graded homework assignments and exams, held recitations and office hours.	Spring 2019
<b>17-651: Models of Software Systems</b> <b>TA/Co-Instructor for 44 master's students</b> Graded homework assignments and exams, developed course materials and gave lectures, and held recitations and office hours.	Fall 2018

## MENTORSHIPS

Eric Liu	Undergraduate student at UIUC.	Summer 2022
Tarang Saluja	Undergraduate student at Swarthmore College.	Summer 2021
Paul Smith	Undergraduate student at St. Mary's University.	Summer 2021
Choi Sang	Undergraduate student at Rose-Hulman Institute of Technology.	Summer 2020
Katherine Braught	Undergraduate student at Iowa State University, now Ph.D. at UIUC.	Summer 2020
Lucy Wang	Undergraduate student at CMU.	Summer 2020

## AWARDS

ACM SIGSOFT Distinguished Paper Award at ESEC/FSE 2021	2021
2018 CMU Master of Software Engineering Program Graduate Fellowship	2018
Beijing Institute of Technology Scholarship	2013-2015

## SERVICES

### Reviews

TOSEM: Transactions on Software Engineering and Methodology	2022
---	------

ICSA: International Conference on Software Architecture	2021
ECSA: European Conference on Software Architecture	2020

## Misc

CMU ISR Ph.D. Admission Committee	2021
-----------------------------------	------

Updated on 09/12/2022