

Changjian (CJ) Zhang

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*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

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

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