

Haobin Ni

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Education

Cornell University

PH.D. IN COMPUTER SCIENCE

- Co-advised by Robbert van Renesse and Greg Morrisett

Ithaca, NY

July. 2017 - Present

Cornell University

MASTER IN COMPUTER SCIENCE

Ithaca, NY

Dec. 2021

Shanghai Jiao Tong University

B.S. IN COMPUTER SCIENCE

- Graduated from ACM Honor Class

Shanghai, China

Sep. 2013 - June. 2017

Publications

Hardening Attack Surfaces with Formally Proven Binary Format Parsers

NIKHIL SWAMY, TAHINA RAMANANANDRO, ASEEM RASTOGI, IRINA SPIRIDONOVA, **HAOBIN NI**,

DMITRY MALLOY, JUAN VAZQUEZ, MICHAEL TANG, OMAR CARDONA, ARTI GUPTA

PLDI 2022

Compositional Security for Reentrant Applications

ETHAN CECCHETTI, SIQIU YAO, **HAOBIN NI**, AND ANDREW C. MYERS

IEEE S&P 2021

Best Paper Award

Experience

Microsoft Corporation

RESEARCH INTERN

- Worked on EverParse, a formally verified parser generator written in F*.
- Worked on Hyper-V, a virtual machine solution adopted by Azure, Microsoft's cloud service.

Redmond, WA

May. 2019 - Aug. 2019

Microsoft Corporation

RESEARCH INTERN

- Worked on formal verified parsing of ASN.1, and X.509 in particular, based on previous work of EverParse.

Remote

May. 2021 - Aug. 2021

Selected Research Projects

Ironwood, Compositional Reasoning of Distributed Systems

ADVISED BY GREG MORRISSETT AND ROBBERT VAN RENESSE.

- Built a prototype verification framework in Coq based on a new abstraction that utilizes the modularity of distributed system designs to alleviate the proof burden.

Cornell

Feb. 2018 - Present

Selected Honors

INTERNATIONAL COLLEGIATE PROGRAMMING CONTEST (ICPC)

Mar 2018	North American Invitational Programming Contest (NAIPC), Open Division, 1st Place	<i>Online, U.S. & Canada</i>
May 2016	ICPC World Finals, 2nd Place, Asia Champion, Gold Medal	<i>Phuket, Thailand</i>
Nov 2015	ICPC Asia Regional Contest Tsukuba Regional, 1st Place	<i>Tsukuba, Japan</i>
Nov 2015	ICPC Asia Regional Contest Beijing Regional, 1st Place	<i>Beijing, China</i>
Jun 2014	ICPC World Finals, 6th Place, Silver Medal	<i>Ekaterinburg, Russia</i>
Oct 2013	ICPC Asia Regional Contest Nanjing Regional, 1st Place	<i>Nanjing, China</i>

OTHER PROGRAMMING CONTESTS

Oct 2016	The 26th Annual Berkeley Programming Contest, 1st Place	<i>Berkeley, CA</i>
May 2016	XVI Open Team Programming Collegiate Cup, 3rd Place	<i>Moscow, Russia</i>
Oct 2015	China Collegiate Programming Contest, 1st Place	<i>Nanyang, China</i>
Aug 2015	Google Code Jam Onsite Final, 16th Place	<i>Seattle, WA</i>
Mar 2015	Facebook Hacker Cup Onsite Final, 5th Place	<i>San Francisco, CA</i>

Teaching

CS 5199: Competition Programming and Problem Solving Seminar

CO-ORGANIZER

Cornell
19 Spring, 19 Fall, 20 Spring

Cornell Summer Internship Program

MENTOR

Cornell
18 Summer

CS 4810: Introduction to Theory of Computing

TEACHING ASSISTANT

Cornell
17 Fall

CS 3410: Computer System Organization and Programming

TEACHING ASSISTANT

Cornell
18 Spring

Selected Service

President, Head Coach

CORNELL ACM PROJECT TEAM

Cornell
May. 2018 - PRESENT

Co-organizer

CORNELL HIGH SCHOOL PROGRAMMING CONTEST

Cornell
Apr. 2018 - PRESENT

Coach

CORNELL ACM PROJECT TEAM

Cornell
Sep. 2017 - May. 2018

Coach, Lecturer

SHANGHAI JIAO TONG UNIVERSITY ACM TEAM

SJTU
May. 2016 - Jun. 2017

Lecturer

SHANGHAI HOLIDAY SCHOOL FOR NATIONAL OLYMPIAD IN INFORMATICS

Shanghai, China
Sep. 2013 - Jun. 2017

Lecturer, Problem Setter, Judge

INTERNATIONAL COLLEGIATE PROGRAMMING CONTEST CAMP (ICPCCAMP)

Beijing, China
Jan 2015, Jan 2016, Feb 2017

Language Proficiency

JLPT Japanese-Language Proficiency Test N2

Aug. 2014