

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

Shanghai Jiao Tong University

B.S. IN COMPUTER SCIENCE

- Graduated from ACM Honor Class

Shanghai, China

Sep. 2013 - June, 2017

Publications

Edelweiß: Flexible and Effective Simulation of Consensus Protocols and Attacks

HAOBIN NI, CHUJUN SONG, ROBBERT VAN RENESSE

In Submission

Selected Research Projects

Ironwood, A Formal Verified Byzantine Fault Tolerance Protocol Implementation

ADVISED BY GREG MORRISSETT AND ROBBERT VAN RENESSE.

- Formalized the BOSCO protocol and proved its Byzantine-fault tolerance properties in Coq, an interactive theorem prover.

Cornell

Feb. 2018 - Present

Lotusroot, A Fast and Flexible Virtual Machine for Smart Contracts

JOINT WORK WITH SIQIU YAO.

- Designed and implemented a Java-compatible runtime environment for smart contracts that runs on top of blockchain-style consensus.

Cornell

Aug. 2018 - Present

Charlotte: Composable Distributed Authenticated Data Structures

JOINT WORK WITH ISAAC SHEFF, XINWEN WANG, ZHENJIA XU. ADVISED BY ANDREW C. MYERS AND ROBBERT VAN RENESSE.

- Charlotte is a distributed protocol framework that abstracts the storage and verification of blocks separately.
- Implemented the Nakamoto blockchain protocol on top of Charlotte.

Cornell

Sep. 2018 - Present

Wyvern, An Information Flow Secure Language for Smart Contracts

JOINT WORK WITH ETHAN CECCHETTI, SIQIU YAO. ADVISED BY ANDREW C. MYERS.

- Designed and implemented a new smart contract language that enforces information flow policies through static type checking.

Cornell

Apr. 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

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

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