# Xiangfeng Zhu

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#### **Education**

University of Michigan, Ann Arbor, Expected: May 2020 GPA:-/4.00

Bachelor of Science, Computer Science

University of California, Santa Cruz, Sep 2016 – June 2018 GPA:3.94/4.00

Bachelor of Science, Computer Science

Dean's honor List: Fall 2016, Winter 2017, Spring 2017, Winter 2018, Spring 2018

Coursework

Algorithms Data Structure
Artificial Intelligence Distributed Systems
Computer System Computer Networking

**Skills** 

Programming: Java, C, C++, Python, Matlab, Bash

Markup/Templating: HTML, CSS, Latex

Tool: Git, Vim, Neo4j, Docker

**Experience** 

Software Engineer Intern | Hainan Airline, Beijing

July 2018 – Sep. 2018

• Worked in Airline Map team to create new navigation app for pilots

• Implemented newly-designed pages and built an interactive navigation with HTML, CSS, XML and OpenLayers3

Undergraduate Researcher | Disorderly Lab, UCSC

Mar. 2018 – Now

- Developed a debugging approach based on analysis of provenance data obtained during system executions equipped with correctness specifications
- Helped Design a standalone prototype Debugger Nemo and validated Nemo on protocols from real-world distributed bugs

Undergraduate Researcher | Computer Communication Research Group, UCSC Mar 2017 – Feb. 2018

- Analyzed efficient methods for Channel Access Method for Networks with Hidden Terminals
- Studied the efficiency of the first transmission strategy for contention-based MAC protocols using Markov Chain

Undergraduate Researcher | Storage System Research Center, UCSC

Mar. 2017 – Aug. 2017

• Built an app that detects which cell tower a phone connected to, determine fake cell tower, and locate the cell tower or potential IMSI-Catcher

Small Group Tutor | University of California, Santa Cruz

Apr. 2017 – Mar. 2018

- Tutored CMPS12B (Data Structure), CMPS101(Abstract Data Types) as top 1% student
- Held weekly sessions to teach concepts of Data Structure and Algorithms
- Helped students design some aspects of programming assignments for the class

#### **Projects**

#### Online Reservation system (Java)

• Designed an online reservation app for Manyue Yoga Stadium, on-line payment system, and online community for member to share their experience.

### Fault-tolerant Scalable Key-Value Store (Python)

• Developed a distributed, fault-tolerant key-value store that can store the amount of data that cannot fit into one single machine, using consistent hashing

## Distributed Debugger Using Provenance Graph (Go)

• Designed a lineage-driven distributed debugger(Nemo) with graduate students that can analyze the program and give suggestions to the programmer how and where to correct the program

#### Chess Puzzle Solver (Java)

• Wrote a program that can determine if a player can force checkmate in up to 5 steps, including the moves of the opponent