

# Haocheng An

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## EDUCATION

### The University of Texas at Austin

Bachelor of Science in Computer Science, CS

Bachelor of Science in Mathematics, Mathematical Sciences

Master of Science in Computational Science, Engineering and Mathematics

**Expected May 2019**

Cumulative GPA 3.9/4.0

## RELEVANT COURSEWORK

(CS) Data Structure, Algo, Big Data Prog, DBMS, Machine Learning, Neural Networks (Taking) NLP

(M) Real Analy, Stats, Probability, Stoc process, Num Analy, Linear Alg, DiffEq, Modeling(Taking)MCMC

## SKILLS

**Natural Language** Chinese

**Computer Tools** Word/PPT/Excel/LaTeX

**Program Language** Java (Hadoop, Spark)/C

**Script Language** MATLAB/SQL/R/Python/HTML

## WORK EXPERIENCE

### Software Development Intern, Cisco Systems, Inc, Richardson, TX

*Jun 2017-Aug 2017*

Query more than 9000 result counts for each 4 nodes and 5 service ID from Kibana using Elasticsearch

Predict count's normal interval for sparse count cases using statistical methods and ARIMA thoughts

Develop Python micro service to alarm engineers if actual count falls outside of the normal interval

### Research Intern, Institute for Computational Engineering and Sciences, Austin, TX

*Jun 2016-Aug 2016*

Implement condition number estimation of matrices with dimensions 500~10000 using C and BLIS

Co-Plot the performance and accuracy of the estimations by MATLAB and compare with LAPACK

Draft a 16-page research report, design a poster and present to fellows, PhDs, and professors

### Undergraduate Assistant, College of Natural Sciences, UT Austin

*Jan 2015-Dec 2017*

Offer guidance on math, physics and/or computer science problems to 10 students each week

Provide advice to students on test preparation and taking strategies and course registration

Grade the programming and proof homework for applied number theory class

## RELEVANT PROJECTS

### Tic-tac-toe Game

*Mar 2017*

Implement the Platform to Support man vs man, man vs machine Tic-tac-toe game on the 3\*3 board

Implement 5 different level of machines' strength for the man vs machine mode in Java

### MapReduce

*Sept 2016-Dec 2016*

Implement Inverted Index, User Sessions by using Hadoop and Spark respectively

Utilize AVRO Files and Hadoop to characterize the behavior of users by analyzing user session data

Use Spark MySQL interface to get average, min, max of large data set

## COMMUNITY INVOLVEMENT

### Committee Chair of Membership Induction, Phi Beta Kappa(PBK)

*Oct 2017-Present*

Introduce the club and the membership policy to the new inductees

Coordinate with other board members to plan out club social events

## HONORS AND AWARDS

Nominee of Unrestricted Endowed Presidential Scholarship by Department of Mathematics

*Feb 2016*

Top 25% in William Lowell Putnam Mathematical Competition, Austin, Texas

*Dec 2014*