

## ROBERT TUNG

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### EDUCATION

#### **Yale University, New Haven, CT | Class of 2018 (Aug 2014 – present)**

- Major: Computer Science and Applied Math; GPA: 3.93/4.0
- Related Courses: Systems Programming & Computer Organization; Cryptography & Computer Security; Data Structures & Programming Techniques; Programming & Entrepreneurship (Audit); Intro to Computer Science; Discrete Mathematics; Probability Theory; Vector Calculus/Linear Algebra I & II; Differential Equations; Intermediate and Intro to Microeconomics

#### **Texas Academy of Math and Science, Denton, TX | President's List & Honors Diploma (Aug 2012 – May 2014)**

- GPA: 4.0/4.0: All courses from the University of North Texas (More than 70 credit hours)
- Related Courses: Financial Mathematics; Applied Statistics; Seminar in Problem Solving Techniques; Differential Equations; Real Analysis; Linear Algebra & Vector Geometry; Multivariable Calculus; Abstract Algebra

### TECHNICAL AND ORIGINAL RESEARCH EXPERIENCE

#### **Researcher - Texas State University: Computer Science Department (2015) Under Dr. Byron Gao**

##### **"The COCO Conjecture and its Applications in Clustering."**

- Key contributor to project idea and direction; conducted all simulations in Java and all theoretical proofs and observations; wrote paper and poster in LaTeX. Project conducted as part of the NSF's REUIOT program; named Best Project in REUIOT's poster presentation. (Abstract and paper available upon request) *Ongoing.*

#### **Team Leader - Texas State University: Statistics Department (2013-2014) Under Dr. Alex White**

##### **"A Novel Statistical Representation of Education and Development to Improve Overall Performance."**

- Generated project idea; guided team members and project direction; spearheaded creation of formula, statistical data analysis and simulation on Mathematica; wrote paper in LaTeX. (Abstract and paper available upon request)

#### **Key Contributor - Texas State University: Statistics Department (2012-2013) Under Dr. Qiang Zhao**

##### **"A Novel Approach to Estimating Survival Functions for Interval Censored Data with STD Behavioral Diary Information."**

- Aided in coordination of project direction; contributed to formulas and a large portion of Statistical data analysis and simulation in R; wrote a large portion of paper and edited using LaTeX. (Abstract and paper available upon request)
- This project was a Siemens Competition Regional Finalist and placed second at the ISEF Texas State Science Fair

#### **Engineer/Data Scientist – Check (2015-present)**

- Key contributor to both the frontend and the backend of this Meteor-based automated geo-fencing attendance tracking application/startup; project created on Meteor framework; project has received \$1000 VC funding

#### **Example of Notable Coursework**

- LZW: In C, built a file compressor and decompressor based on the Lempel-Ziv-Welch algorithm, which learns off of previous strings. Project accounted for any file corruption, edge cases, and allows for custom tables and metrics.

### SKILLS

- **Programming:** Java, C; Basic knowledge: R, Mathematica, Racket, HTML/CSS/Javascript; Other: LaTeX
- **Languages:** Fluent in English and Chinese; Basic language skills in French

### WORK EXPERIENCE

#### **Counselor – Mathworks Honors Summer Math Camp, San Marcos, TX (Jun 2014 – Aug 2014)**

- Led a group of students through new problems and ideas; broke down math problems and the research process; helped manage courses and all aspects of camp life; coordinated with professors, students, parents and employers

#### **Teaching Assistant – Awesome Math Summer Program, Dallas, TX (Jun 2013)**

- Conducted office hours, took notes in class and helped students struggling with difficult class concepts; assisted instructor with writing class material and handouts; graded tests and homework

### LEADERSHIP

- 2016 Executive Director of YHack, 2015 YHack Director of Sponsorship and 2016 Director of Code Blue (2014-present): Organize one of the largest hackathons in the Northeast as well as high school computer science outreach
- Mathcounts Coach/Treasurer (2014-present): teach math at local middle school, treasurer/liaison to Yale Dwight Hall
- Yale Global Ambassadors Board Member and Tour Guide (2014-present): Communicate in fluent Chinese with international tour groups, presenting facts and ideals of the university; coordinate with international tour companies
- Founder and Head of MathStar Club in Plano, TX (2010-2014): co-founded this free weekend club for interested elementary and middle school students; organized meetings, taught bi-weekly lectures and conducted all activities
- Mu Alpha Theta President (Texas Academy of Math and Science Chapter) (2013-2014): organize all competitions, created the local chapter of Study Buddy and other local tutoring initiatives, head of the committee that organized the TAMS (Math and Science) Tournament, conduct weekly general assembly and other events
- Z-Math Zone Teaching Assistant (2010-2011): helped students struggling with difficult class concepts through classes and gave feedback on curriculum, graded homework