## **Justin He**

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### **EDUCATION**

Trinity School, New York, NY

Class of 2016

SAT I: CR 730, M 800, W 700, AP Computer Science A: 5

### WORK EXPERIENCE

# **Memorial-Sloan Kettering Cancer Center**, New York, NY

Summers of 2014, 2015

Research Intern

- Accepted by "The Human Oncology and Pathogenesis Program (HOPP) Summer Student Program" which accepted only 19 students from all over the Tri-State area
- Worked on the tech-side of research and the optimization of lab technology:
  - Optimized and streamlined the way RNA sequencing data is processed and graphed in the lab by building scripts in R and working with the internal server system; this technology is used by 20+ lab members to generate dozens of graphs each day. (2015)
  - Helped with the handling of Chip-seq, RNAseq, and Atac-seq by transferring data from the New York Genome Center to Memorial Sloan Kettering Cancer Center's local storage (total ~100GB) (2015)
- Conducted independent research on Acute Myeloid Leukemia (AML):
  - Worked on a domain scan on the PHD finger protein (PHF20) using CRISPR-Cas9 technology to investigate the importance of specific domains of PHF20 to the survival of AML cells. (2015)
  - Conducted a drug treatment assay of Nucleophosmin (NPM1) mutated AML cells with the DOT1L inhibitor; results show that AMLs with the NPM1 mutation are dependent on protein DOT1L. (2014)

### LEADERSHIP EXPERIENCE

### TRINITY SCHOOL, New York, NY

2013 - Present

Debate Team President, 2014 - Present

- Recruit and teach novices at the beginning of every school year
- Schedule and judge frequent practice rounds 50+ participants every week
- Work with faculty advisors to set up registration for local circuit and national circuit tournaments
- Prepare for debate tournaments through research, compilation, and practice (20+ hours per week) Peer Leader, 2015 - Present
- Selectively chosen amongst my classmates to guide incoming freshmen for the 2015-2016 school year *Science Club President, 2014 Present*
- Schedule science-related events, such as laboratory and museum tours for 30+ participants
- Lead weekly science bowl practices and the Trinity Science Bowl team in competitions Breakdance Team President, 2014 - Present
- Recruit and teach new participants at the beginning of every school year
- Hold and lead 2 to 3 practices per week for 20+ participants
- Choreograph 4 to 5 performances per year

Under The Same Sky Organization Vice President, 2015 - Present

- Help plan yearly fundraising activities to sponsor education of underprivileged children in rural China *Admission's Office Assistant, 2015 Present*
- Invited to work with the Upper School's Admissions department to work with prospective students

### **PROJECTS**

### Signal (justinhe.com/Signal)

Spring 2015

- Uses hand recognition technology to identify American Sign Language letters and translates them into readable text
- Built with HTML, CSS, JavaScript (jQuery) and Leap Motion API

## **TrinDebate** (<u>trindebate.heroku.com</u>)

Summer 2015

- A community website for the Trinity School Debate Team, which serves 50+ debaters
- Features a fully functional user system with e-mail verification and various other tools for debatespecific needs
- Front-end built with HTML, CSS, JavaScript (jQuery); Back-end built with Node.js, Express.js, and Angular.js; uses MongoDB database service

### Itemify (itemify.heroku.com)

Summer 2015

- A web application submitted to the Riot Games API Challenge 2.0 that analyzes 150,000+ League of Legends matches to find the most optimal build path for each character in the game
- Front-end built with HTML, CSS, JavaScript; Back-end built with Node.js, Express.js, and Python

### **Trinity Snapchat GeoFilter**

Spring 2015

- Used Photoshop and Gimp to create a mobile-friendly design
- Used by 500+ people of Trinity School

### **SKILLS & INTERESTS**

### **SKILLS**

- Most Proficent: HTML, CSS, JavaScript (jQuery), Processing/Arduino, Java, Git, Photoshop, Node.js, Leap Motion SDK
- Familiar: Ruby (on Rails), Python, Android SDK, Swift
- Fluent in English, Proficient in Hainanese Chinese and Spanish
- Proficient in Microsoft Word, Excel, Powerpoint, and LaTeX

#### **ACTIVITIES**

• Breakdance Team, Swimming Team, Debate Team, Science Bowl Team

#### **INTERESTS**

• Programming, Computer Security, Hackathons, Hip-hop Dancing, Debate, Swimming, Science Trivia, Water Polo, Rubik's Cube Speed Solving