# CHRISTINA LI

# MECHANICAL ENGINEER/COMPUTER SCIENTIST

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## WORK EXPERIENCE

## Student Researcher, Landay Lab

June 2017-August 2017; Stanford, California

Developed a drone Stanford campus tour guide system. Used iOS programming, image recognition (OpenCV), and flight control with a DJI Phantom 4. Also prototyped a physical onboard mount for the hardware to fly on the drone.

#### **Systems Manager,** Research Science Institute (RSI)

May 2016-August 2016; Cambridge, Massachusetts

Responsible for teaching the RSI 2016 students how to use the Athena Computing System at MIT as well as how to write papers in LaTeX. Wrote scripts to streamline processes at RSI as well as perform assorted tasks as an executive staff member.

## Consultant, Semia

May 2016-August 2016; Cambridge, Massachusetts

Responsible for giving advice to the company relating to computer science/robotics curriculums because of experience with Hello World and FIRST robotics. Created business plans for FRC teams to execute outreach opportunities.

# PERSONAL PROJECTS/EXTRACURRICULARS

#### Mechanical lead, Mars Rover team

April 2017-Present; Stanford, California

Leading the mechanical development of a Mars Rover for the University Rover Challenge. Researching and designing the drive base, chassis, and arm for the rover. Working with other departments to ensure a successful first year at the competition.

## Creator, Hello World (tina98.github.io/HelloWorld/)

November 2014-Present; Sterling Heights, Michigan

Created and hosted a middle school day camp for girls in computer science. Won national and international awards: Microsoft Youthspark Challenge for Change, White House Champion of Change. Featured on Nickelodeon's TV show The Halo Effect and CNN's Young Wonders.

#### Vice President of Controls, ThunderChickens #217 FIRST Robotics (thunderchickens.org)

January 2014-June 2016; Sterling Heights, Michigan

Responsible for wiring and programming the robot my team built as well as teaching the new students C++. Led the programming for swerve drive. Also illustrated a children's book Flooded!, organized Robot Days/Robot Night.

#### **Scholar,** Research Science Institute (web.mit.edu/tinali/www)

June 2015-August 2015; Cambridge, Massachusetts

Researched with MIT's Probabilistic Programming Group's machine learning system Venture. Created a SLAM (Simultaneous Localization and Mapping) algorithm that used AprilTags to determine a drone's obstacles and path from a video recording.

#### **FDUCATION**

#### **Stanford University**

September 2016-June 2020; Palo Alto, California

Intend to major in mechanical engineering or computer science engineering (focus in mechatronics and artificial intelligence), involved in Stanford Solar Car Project (array and battery team) and Mars Rover team

#### Stevenson High School/Utica Center for Math, Science, and Technology

September 2012-June 2016; Sterling Heights, Michigan

Graduated with a 4.21 GPA as valedictorian and Summa Cum Laude

## **EXPERIENCE**

- Software experience: C, C++, Java, Python, MATLAB, HTML, CSS, JavaScript, SQL, iOS (Swift), embedded systems
- Manufacturing experience: welding (TIG, MIG), machining (mill/lathe), woodworking
- CAD experience: Solidworks, Autodesk Fusion
- Organizations-National Center for Women in Information Technology, White House Champions of Change, Society for Women Engineers, FIRST Robotics