

# Christine Zhao

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## EDUCATION

### THOMAS JEFFERSON HS FOR SCIENCE AND TECHNOLOGY

#### ADVANCED DIPLOMA

National Merit Finalist

Expected Jun 2018 | Alexandria, VA

Cum. GPA: 4.455

AP Scholar with Distinction

## COURSEWORK

### HIGH SCHOOL

Concrete Math

Multi-variable Calculus

Web Applications Development

Mobile/Web Applications Research

Artificial Intelligence 1/2

AP Computer Science A

Data Structures

AP BC Calculus

## SKILLS

### PROGRAMMING

Advanced:

Python • Javascript • HTML/CSS • Java

Intermediate:

C# • Unity • Express.js

Socket.io • Bootstrap • JQuery

Familiar:

Visual Basic (VBA) • ArcPy/ArcGIS

Android • MySQL • LaTeX • Apache

## LINKS

Github:// czhao028

Facebook:// czhao028

Quora:// Christine-Zhao-7

## EXPERIENCE

### MIT BEAVERWORKS SUMMER INSTITUTE | PARTICIPANT

Summer 2017 | Massachusetts Institute of Technology, Cambridge, MA

- Allowed users to queue up an entity's most relevant search terms by implementing the Natural Language Toolkit in an Alexa skill.
- Built a fanfiction generator skill by utilizing the BeautifulSoup library, Bag-of-Words algorithms, the Tensorflow library, and Alexa cards.
- Contributed over half a million lines of code thru 51 commits to a team repository, regularly encouraging four-member group to push through Git bash
- Won Second Place for final project and presentation.

### ASPIRING SCIENTISTS SUMMER INTERNSHIP PROGRAM | INTERN

June 2016 – Sep 2016 | George Mason University, Fairfax, VA

- Innovated a way to automatically convert real-time flood data to GeoJSON files by utilizing the ogr2ogr command line tool, VBA script, ArcPy, and openpyxl.
- Created a Javascript Google Maps framework to pinpoint flood hazard areas. Flood alerts and safety information were then automatically pushed to users within a 15-mile radius of location.
- Wrote an 18-page research paper on our mobile application, Flood Information Portal, to enter for the Siemens Competition, resulting in a Regional Semifinalist award.

### TJ'S LIFT MENTORSHIP PROGRAM | PRESIDENT & CO-PRESIDENT

Sep 2016 – present | Alexandria, VA

- Utilized Microsoft Office components like Mail Merge to compile compact mailing lists and send formatted, personalized emails from Excel sheets.
- Publicized LIFT through tjMEDIA and increased mentor attendance by 30%, introducing a centralized sign-up form to track mentor participation and hours.
- Developed a grant application for the TJ Partnership Fund, leading to the Fund's decision to fully sponsor LIFT and succeed Jack Kent Cooke Foundation's \$100,000 two-year grant.
- Introduced mentor-taught sessions for service hours, conserving hundreds of dollars in grant money.

## PROJECTS

### MYVROW

Developed a virtual reality infinite runner game in Unity to be paired with the rowing ergometer. Experimented with threading to generate random landscapes and C# script/Unity's Bluetooth plugin to read in real-time user speed into the game.

### FOTO BOOTH

Built a web application to allow personalized Facebook album downloads. Set up Express.js server to store user data into MySQL databases. Used Browserify to implement Node.js packages on the client-side to work with asynchronous Facebook API requests, which gathered album covers, pictures, and static links.

### SUBURBIA

Collaborated with three other high school students to develop a web application that finds the perfect neighborhood based on user preferences for schools, price, age group(s), etc. Won First Prize in the Fannie Mae Challenge at the 2017 Technica Hackathon at the University of Maryland.