# Ling Ma

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## EDUCATION

**Computer Science, Macalester College**                 Bachelor of Arts Expected May 2021

St.Paul, MN                                                              GPA: 3.82   Major: 4.0

Related Courses: Algorithm Design, Object-oriented Programming, Computer Systems, Discrete Math

## RELEVANT EXPERIENCE

**Research,** University of Minnesota, St. Paul, MN                           Sep 2018-Present

*Research Assistant*

- Work in a project in the topic of Personalized Transportation Safety Solution for Uber and Didi.
- Proposed the concept of "virtual guard" to address the problem.
- Currently working on the phase of user interface design. Next step will be developing prototype.

**Object-oriented Programming & Data Structure in Java,** Macalester College       Sep 2018-Dec 2018

*Teaching Assistant*

- Helped students debugging their homework.
- Helped students with concepts in OOP and data structure.

**Intro to Big Data with Kaggle Course,** Beijing, China                          June-Aug 2018

*Teaching Assistant*

- Learned using numPy and pandas to manipulate data.
- Taught pre-class python basics.

**BOHAN POSTER STUDIO,** Beijing, China                                    Mar-Apr 2017

*Poster Studio Assistant*

- Designed advertising posters with Photoshop for movies and TV series.
- Proposed creative idea for a poster and collected relevant materials.
- Processed materials and examined and polished details with extensively Photoshop using.

## PROJECT

**Delaunay Triangulation Picture Process**                                      Dec 2018

- Implement Delaunay Triangulation Insertion Algorithm in Python, and applied it to triangulate pictures. Used openCV for edge detection and coloring.

**Breakout Game**                                                          Mar 2018

- Practiced object-oriented design in Java in CS 124. The game is implemented with ball class, paddle class, brick wall class, and game program class. All objects are initialized and their collisions are checked in the game program class.

**Bullet Hell Game**                                                       Nov 2017

- Practiced Python by using Pygame for game development. The game is implemented with enemy class, level class, loadPicture class, and game program class. All the collisons checking are in the game program class, where Pygame built-in functions were used.

## SKILLS

*Computer*: Java, Python. Familiar with HTML, CSS, R, C.

*Software*: Photoshop, Microsoft Office, Rstudio.

*Languages*: Native in Mandarin. Fluent in English.