# Anthony Liu

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### Objective

To improve my skills and learn new innovative technologies in the field of Computer Science.

### Areas of Interest

Machine Learning, Artificial Intelligience, Data Analysis

#### Education

2015-Present GPA 3.9

### Computer Science in the School of Engineering

University of Michigan, Ann Arbor

Courses Completed

- Data Structures and Algorithms
- · Programming and Introductory Data Struc-
- · Discrete Math

### Courses Enrolled In

- Artificial Intelligence
- · Computer Security
- Computer Organization

### Skills

- Languages SQL, C++, Python, Javascript, Haskell, Matlab, PHP, HTML, CSS
- Databases MySQL
- Others GIT, Apache Web Server, Linux/Unix/Windows

### Work Experience

#### 2016 June-Present University of Michigan

Research Assistant

Ann Arbor, MI

Working under Dr. Walter Lasecki of University of Michigan on real-time text annotation for the IBM Sapphire project. The annotation application, Textanno, was developed using Meteor JS. Users can create and modify labels to highlight excerpts of text. Highlights respond to the server in real time so users can also highlight text collaboratively. Features of the tool can be configured to make cooperative tagging more efficient.

## **Projects**

### 2013-2014

2016

#### A Social Sensing approach Air pollution in the US

In collaboration with Dr. Pang-Ning Tan of Michigan State University, 170 million tweets were streamed from Twitter from December 15th 2013 to April 1st 2014 and stored in a MySQL DB to analyze the relationship between Air pollution and tweets. A website created with PHP, html, and javascript was used to analyze and visualize the data retrieved. Tweets could be searched by keyword and graphed by occurence over time, along with tweet sentiment over time. Tweets could also be visualized using Google Maps, mapping tweets with certain keywords to the location they were created.

#### Carvelution - Generating 2d cars with genetic algorithms 2014

Simulated 2d cars in C++ with SFML and Box2d physics engine. Cars are configured using 20 gene traits, changing the overall shape of the car, number of wheels, size of wheels, and the color of the car. New generations of cars are generated by interspersing and mutating genes of the best performing cars from previous generations.

### WolverineSynth - A complex Music Synthesizer GUI written in Matlab.

WolverineSynth is a synthesizer where users can create music notes and chords using a simple GUI. A rich variety of music can be produced using multiple built-in envelopes, filters, and instruments configured using frequency modulation.

### Honors

- Dean's List Fall 2015 and Spring 2016 at the College of Engineering at University of Michigan
- Valedictorian Okemos High School, Okemos, MI