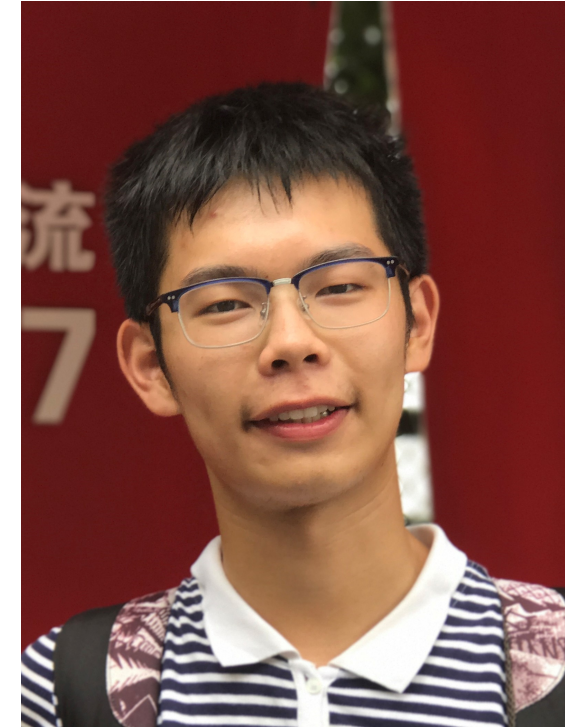
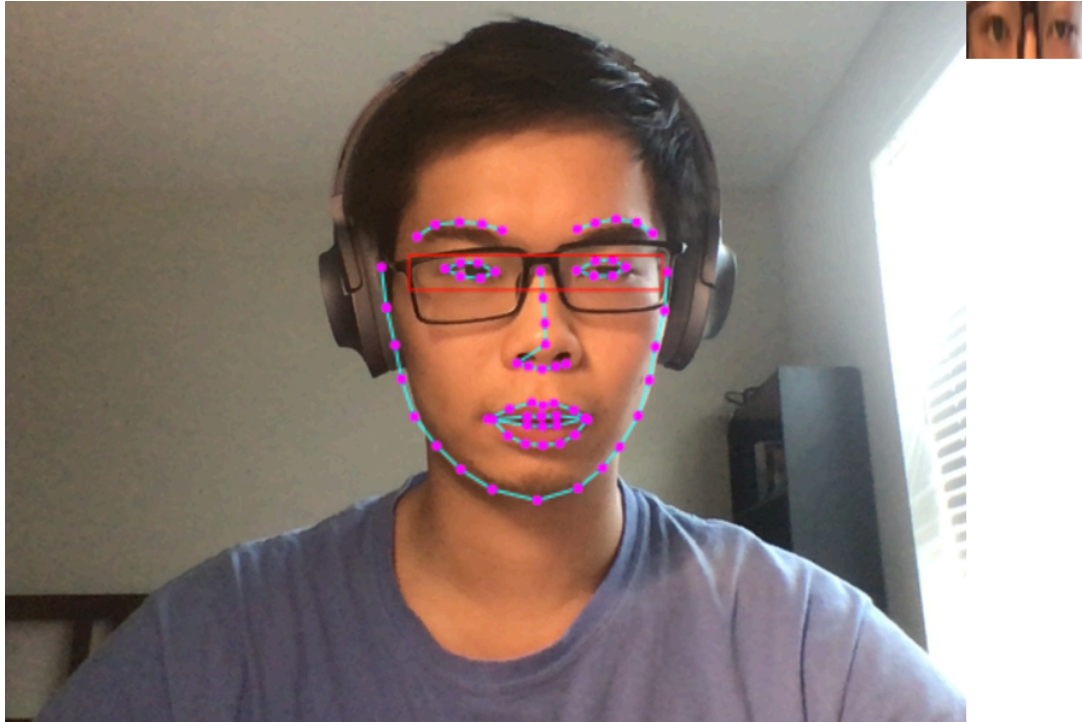


Eye Tracking for People with ALS



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Major: B.S. in Computer Science & Statistics

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Goal

- Find a cheap eye-tracking solution using web camera for people with ALS to interact with the computer.

Importance

- Current eye-tracking devices on the market are expensive
- In US, people conducted with ALS must wait for 5 month before getting the funding to purchase sophisticated eye-tracking devices
- A cheap, reliable human-computer interaction solution using webcam is desirable

Results

- I collected and filtered 1000+ data using website developed by ourselves. By experimenting with different machine learning algorithms, I achieved an average test accuracy of 95.5%+ in recognizing if the user is looking at left or right. The next step is to develop a usable website for people with ALS to use.
- It is crucial for people interact with computers nowadays. My results show that it is possible to help people with ALS to interact with computers using web camera.

