

# William Y. Lee

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## EDUCATION:

**Current:** Swarthmore College (Computer Science; Mathematics, English Literature), Class of 2020 (GPA: 3.83/4.00)

**Previous:** Palo Alto High School, Class of 2016 (GPA: 3.98/4.00)

### **Relevant Coursework:**

#### **Swarthmore CS72 Computer Vision (In progress)**

- Studied computer vision techniques including neural networks, adaboost, k-means clustering, stereo vision, structure from motion, and homographies.

#### **Coursera CS229 Machine Learning**

- Completed Andrew Ng's Stanford Machine Learning course on Coursera (along with both the Coursera assignments and the assignments on the Stanford CS229 course page).

#### **Stanford CS161 Design and Analysis of Algorithms**

- Audited Stanford's CS 161 class on the Design and Analysis of Algorithms.

#### **Swarthmore CS35 Data Structures and Algorithms**

- Studied and implemented fundamental data structures and algorithms in C++

#### **Webmaster, The Paly Voice, Palo Alto High School** ([palyvoice.com](http://palyvoice.com))

*Palo Alto High School* | August 2015 - June 2016

- Full stack web development

**AP Computer Science A:** Covered the AP Computer Science curriculum at Palo Alto High School.

**CS Capstone:** Created a website for my high school's lost and found as my CS Capstone project.

## WORK EXPERIENCE:

#### **Software Engineering Intern, NASA Ames Research Center** (upcoming summer)

*NASA Intelligent Robotics Group* | May 2017 - August 2017

- Will parallelize code, optimize algorithms, and improve the build/test system of the Ames Stereo Pipeline, NASA's geodesy/stereogrammetry suite.

#### **Staff Member, Swarthmore College Computer Society (SCCS)**

*Swarthmore College* | November 2016 - Present

- Selected from a competitive pool of applicants for membership in the SCCS (~10% acceptance).
- Lead a team of 4 other SCCS members in creating a URL shortener ([swat.life](http://swat.life))

#### **Software Engineering Intern, NASA Ames Research Center**

*NASA Intelligent Robotics Group* | June 2016 - August 2016

- Developed a web interface allowing mapping of control points between images taken by astronauts on the ISS to Google Earth satellite imagery using jQuery and the OpenSeadragon library.
- Implemented image manipulation (contrast/brightness adjustment, rotation, zoom, etc) to allow easier identification of landmarks to map between ISS imagery and Google Earth imagery.

#### **Research Intern, NASA Ames Research Center**

*NASA Human Systems Integration Division* | June 2015 - June 2016

- Studied human autonomic responses during simulated Orion spacecraft re-entry. Helped conduct research evaluating the effectiveness of Autogenic Feedback Training Exercises (AFTE) in mitigating motion sickness symptoms caused by spaceflight and microgravity.
- Programmed algorithms in SPL (for Dadisp) to automate and improve data processing efficiency in multiple data channels such as respiration rate and blood pressure by approximately 15%

## SKILLS:

- |                   |          |        |                    |
|-------------------|----------|--------|--------------------|
| • Data Structures | • Python | • Git  | • Web Development  |
| • Algorithms      | • C++    | • Unix | • Machine Learning |

## AWARDS:

- National AP Scholar: Completed 8 AP exams with a score of 4 or higher (all 5s).
- President's Volunteer Service Award (x2): Volunteered a cumulative 450+ hours over 4 years.