

Allen Ye

(408) 343-9628 | allenye66@gmail.com

Relevant Links: [LinkedIn](#) | [GitHub](#) | [Google Scholar](#)

Programming Languages: Python, Java, Javascript, C++, Go, Swift, HTML, CSS, SQL

Technologies: Tensorflow, Keras, scikit-learn, OpenCV, NumPy, pandas, JQuery, Flask

EDUCATION

Northeastern University

Boston, Massachusetts

Computer Science Major with a focus on AI

2021-2024

- Current computer science major freshman enrolled in Northeastern University and graduating in 3 years
- Relevant courses: Linear Algebra, Multivariable Calculus, Discrete Structures, C++

InspiritAI Scholars Summer Camp

June 2020 - July 2020

- Attendant for a pre-college intensive artificial intelligence program taught by Stanford and MIT alumni
- Learned deep/machine learning methods and tools and created projects (e.g. computer vision facial emotion detector)

WORK & LEADERSHIP EXPERIENCE

Ensemble and Deep Learning Malware Detection Research | [Arxiv Paper](#) |

San Jose, California

Research Intern Under Professor Mark Stamp of San Jose State University

May 2020 - August 2020

- Processed 80GB of malware data, extracted opcode features, and trained various machine and deep learning models
- Work published in the chapter "On Ensemble Learning" in the Springer textbook "Malware Analysis using Artificial Intelligence and Deep Learning"

Bit Lab | [App Store Link](#) |

San Jose, California

Paid Mobile App Developer

June 2020 - September 2020

- BitLab is a tech company that focuses on developing robotics and engineering kits for young students
- Programmed with Swift and published the ColorQuest game application that will be integrated with the company app

Cupertino Coding Club | [Club Website](#) |

San Jose, California

Club Founder and President

August 2018 - August 2021

- Founded a club that is a branch of the international nonprofit CoderDojo for students at the local community library
- Created curriculum and videos to teach concepts such as recursion, algorithms, and game/UI design

AWARDS & ACHIEVEMENTS

Synopsys Science Fair 2020 2nd Place with ACM Honorable Mention | [Award Website](#) |

San Jose, California

- Awarded an honorable mention from Association for Computing Machinery and 2nd place in the software section
- Prototyped an autonomous self-flying drone using deep learning and computer vision

Synopsys Science Fair 2021 2nd Place | [Award Website](#) |

San Jose, California

- Awarded 2nd place in the software section
- Trained a lip reader model that utilizes computer vision to translate lip movements to words

Hackathon Placements

United States

- **1st Place:** BayHacks, HackCOVID | **2nd Place:** Hacking the Pandemic with AI

PROJECTS

Computer Vision Lip Reader | [Github Code](#) | [Paper](#) | (Python, Tensorflow, Keras)

San Jose, California

Creator

2020-2021

- Used deep learning and computer vision to create a lip-reading algorithm from scratch for helping the deaf
- My algorithm translates visual lip movements into phonemes that can be stitched back into words to recreate sentences
- Experimented with 1-D CNNs, 2-D CNNs, and ensemble learning methods

Autonomous Drone Navigation Program | [Github Code](#) | (Python, Tensorflow, Keras, scikit-learn)

San Jose, California

Co-Creator

2019-2020

- Processed images that were taken from self-driving car datasets to train computer vision models
- Connected Parrot Bebop 2 drone hardware with trained models and Python scripts to fly the drone

Computer Vision Sudoku Solver | [Github Code](#) | [Summary](#) | (Tensorflow, Keras, scikit-learn, Flask)

San Jose, California

Creator

2020-2021

- Created an application from scratch that can solve a sudoku board using computer vision
- Users can upload an unsolved sudoku grid and the website will output the solution

Integrapph | [Github Code](#) | (HTML, Javascript, JQuery)

San Jose, California

Creator

2021-Current

- Creating a graphing calculator website to easily calculate integrals
- Users can graph functions and click on areas of the graph to obtain its integral
- Writing an algorithm which given a coordinate and functions will calculate the integral encompassing the coordinate