

## Education

**Cornell University** - College of Arts and Sciences, Ithaca, NY  
Bachelors of Computer Science and Mathematics, GPA 3.553/4  
2012 – Present: Junior

**TJHSST** - Thomas Jefferson High School for Science and Technology, Alexandria, VA  
2008 – 2012. GPA 4.242/4

## Professional Experience

**Blackbird Technologies, Menlo Park, CA** Artificial Intelligence Intern *May 2014 – August 2014*  
Worked on detecting the dominant color in an image using a decision tree and an SVM; classified images and query logs; implemented a spatial pyramid to improve image classification; implemented soft k-means to handle ambiguity in image classes; created an auto-cropper to crop rotated images; worked on polka dot and pattern detection in images; read many research papers on computer vision; tested the classifiers; worked with SVMs; used bash scripts and Python with OpenCV; incorporated PCA into the system; worked with NLTK to make a parts of speech tagger; modified the hashing to account for the bias caused by hashing collisions

**Calculus I** Course Assistant *August 2013 – December 2013*  
Graded homework; held study sessions and helped students in the class with their work

**Ancient Wisdom Productions, Ithaca, NY** iOS Programming Intern *April 2013 – December 2013*  
Added new features to a pre-existing application Piction; created an iOS application from scratch

**AnthroTronix, Inc., Silver Spring, MD** Software Engineering Intern *May 2013 – August 2013*  
Software testing; learned the basics of Android app development and made a basic application; work with Matlab for data analysis using graphs and number manipulation; Computer Vision using Python and OpenCV to detect objects in images (NDA); made a game called Tap Tap Rehabilitation to use with a stroke glove in Java; used Processing to create a version of Tetris to use with a Makey Makey, a device that can make any conductive material into an input; wired an Arduino and programmed a GUI to change the color of an LED board connected to the microcontroller in Java

## Course Work

### Introduction to Computer Vision

Group Projects – Image Scissors to semi automatically cut out something from an image; Feature detector to compare images; Panorama maker; System to create 3D models from single images; Machine Learning to build a pedestrian detector

**Computer Science courses:** AP Computer Science (*Java*); Introduction to Computer Programming with Python (*Python*); Object Oriented Programming and Data Structures (*Java*); Introduction to iPhone Application Development (*Objective C*); Discrete Structures; Introduction to Computer Vision (*C++*); Data Structures and Functional Programming (*Ocaml*); C++ Programming (*C++*); Computer System Organization and Programming (*C*); Unix Tools and Scripting (*Bash scripts*); Topics in Computational Linguistics (*Matlab & Python*)

**Math courses:** BC Calculus; Multi Variable Calculus; Linear Algebra; Applicable Geometry; Computational Algebra; Honors Introduction to Analysis I; Applicable Algebra; Mathematical Foundations for the Information Age

**Other Relevant Courses at Cornell University:** Introduction to Linguistics

**Current Courses:** Foundations of Artificial Intelligence; Practicum in Artificial Intelligence; Machine Learning; Operating Systems; Information Retrieval; Introductory Design and Programming for the Web

## Skills

**Java, Python, C++, Matlab, Bash Scripting,** Ocaml, Objective C, C, Scala, and Haskell

Vim, Github, Codebase, JIRA