

# Alex Renda

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## EDUCATION

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### **Cornell University, Ithaca, NY.**

Bachelor of Science, Computer Science, expected May 2018.

#### **CS Coursework:**

Object-Oriented Design and Data Structures – Honors  
Computer System Organization and Programming  
Introduction to Compilers with Practicum  
Machine Learning for Data Science  
Programming Languages and Logics (In Progress)  
Operation Systems with Practicum (In Progress)

Discrete Structures  
Data Structures and Functional Programming  
Introduction to Computer Vision  
Introduction to Analysis of Algorithms  
Foundations of Robotics (In Progress)  
Natural Language Processing (In Progress)

### **Saratoga High School, Saratoga, CA**

Graduated as Salutatorian, June 2014.

## SKILLS

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Proficient in Java, Python, C, C++, OCaml, Linux/Unix systems, computer vision, Android development, and version control.

## EXPERIENCE / INTERNSHIPS

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### **Facebook**

**May 2016 - August 2016**

#### *Software Engineering Intern*

- Created new public-facing features for Facebook's Android apps, including work on both Facebook and Messenger
- Refactored existing code to be more modular, accessible, and sustainable for future development
- Discovered and corrected issues in Facebook's backend related to my app work
- Worked collaboratively with a fellow intern on a significant project we co-owned

### **CS 2112 - Object-Oriented Design and Data Structures – Honors**

**Fall 2015, Fall 2016**

#### *Consultant*

- Answer student questions about course content, online and in office hours
- Develop course material and assignments
- Teach weekly lab sections about programming best practices, including documentation, testing, profiling, version control, and software design patterns

### **CUAUV - Cornell University Autonomous Underwater Vehicle**

**September 2014 - Present**

#### *Software Team Member*

- Work collaboratively as a member of a large team
- Use machine vision to detect and classify different targets underwater
- Develop autonomous, priority-based routing and task execution systems

In 2015, I stayed the summer and worked full time with CUAUV. During this time, I:

- Refined the machine vision system that I wrote during spring 2015
- Developed machine vision modules using OpenCV, scikit-learn, and Caffe
- Worked on miscellaneous tasks involved with managing the software suite of an autonomous submarine, such as debugging CAN bus issues, managing the Linux install, and synchronizing desires with the motor controller

### **Tesla Motors**

**June 2014 - August 2014**

#### *System Validation Intern*

- Wrote a user interface for test case management. The tool guided users through a series of prompts and dynamically created complex queries based on user responses
- Designed and implemented a Python interface to automatically upload test case results to a server
- Developed an Android app to monitor results of automated regression tests

## **Android Development**

Developed and released several Android apps, including:

- An app that parses XML data about a popular video game and displays it in a graphical format
- A weight and balance calculator, which lets pilots check if their plane is safe to fly with its current weight distribution
- A nonlinear tower defense game