

Ryan Liu

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Work Experience:

Infinera Corporation **Firmware Engineering Intern**
Sunnyvale, CA
June 2016-Aug. 2016

- Designed software in C to convert binary calibration data from optical data transmission products into readable text to expedite debugging efforts
- Collaborated with team to automate script creation from excel data using VBA to reduce errors due to manually creating script
- Presented projects to Director of Firmware Engineering.

Amador Valley High School **STEM Tutor**
Pleasanton, CA
(September 2015-June 2016)

- Tutored students in STEM subjects and time management resulting in improved grades and performance in classes
- Continued to advise students on schoolwork outside of work hours

Leadership

IEEE- UC Berkeley Student Branch **IEEE HOPE Committee Officer (Hands on Practical Electronics)**
(August 2016-Present)

- Worked with several student instructors to teach the basics of electrical engineering to non-engineering students
- Redesigned course material to increase focus on practical uses of electrical engineering (ie. Soldering, use of microcontrollers)

Amador Valley VEX Robotics Team **Head of Software Division**
(August 2014- June 2016)

- Spearheaded coordination and planning efforts with other divisions to design and build a robot on schedule.
- Guided software division members and divided responsibilities among members to improve efficiency

Amador Valley Engineering Club **Vice President**
(August 2015-June 2016)

- Organized and designed semester-long engineering projects. Expanded outreach and community service efforts resulting in greater interest in club

Projects

Yelp Restaurant Maps (2016)

- Predicted user's preferences from past reviews using machine learning, implemented in Python.

Android Flashlight (2016)

- Android app to control a phone's flash for use as a flashlight and flashes SOS in Morse code.

Asteroids (2015)

- Variant of Asteroids developed in Java.
- Implemented collision detection and keyboard input to control spacecraft.

Pokémon Dungeon Explorer (2014)

- Developed in Java, designed random map creation and enemy AI. Based on Pokémon mystery dungeon.

Solitaire (2014)

- Solitaire developed in Java. Implemented event based program.

Education

University of California, Berkeley
May 2020 GPA:3.80

Electrical Engineering and
Computer Science B.S.

Coursework:

- Structure and Interpretation of Programs
- Physics- Electricity and Magnetism
- Multivariable Calculus

Amador Valley High School
June 2016

- Weighted GPA: 4.40/4.00
- Unweighted: 4.0/4.0

Coursework:

- AP Physics Mechanics
- AP Computer Science A
- AP Statistics
- AP Calculus BC

Awards/Accomplishments

• **IEEE Joe Wujek Memorial Scholarship** (May 2016)

Awarded for dedication and potential in engineering

• **VEX Robotics Judges Award**
(January 2016)

Awarded for excellence in STEM outreach, community service and web design

• **President's Award for Educational Excellence** (June 2016)

Awarded for an unweighted GPA of 4.0

• **National Merit Finalist**
(February 2016)

Awarded to the top 1.25% of PSAT test takers

Skills

Proficient: Java, Python

Familiar: C, Git/Github, Android Studio, Linux

Elementary proficiency: Spanish and Cantonese

Interests

- Badminton
- Table Tennis
- Robotics and Artificial Intelligence