# Sophie Loughlin

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## EDUCATION

**University of Colorado Boulder**
  Candidate for Bachelor of Science in Computer Science and Engineering                May 2020
  Intended Engineering Leadership Certificate
    Relevant Courses:  APPM Calculus 1 and 2, Data Structures, Discrete Structures, Computer Systems, Linear Algebra, Software Dev. Methods and Tools
    Honors/Awards: Engineering Honors Program, Engineering Leadership Program, Presidential Scholar, Engineering Merit Scholar

**Holy Names Academy – Seattle, WA**                                                May 2016
    GPA: 4.0
    Honors/Awards: AP Scholar with Distinction, President's Outstanding Excellence Award – Gold Award, Washington State Honors Award, National Honor Society

**University of Washington, American Society of Materials Summer Program**          August 2015
    Partnered with a local fabricator to test, measure and record tensile strength and hardness of different types of steel; findings were presented to UW faculty and guests.

**University of Colorado Boulder, Pre-college Engineering Program**              June-July 2015
    Collaborated with a small group to design and build an affordable educational tool  that demonstrated various principles of electromagnetism. The final product was presented to, and critiqued by, CU faculty and staff.

## WORK EXPERIENCE

**ASME Electronics Packaging Journal Automation Contractor**                        October 2017
    writing software to automate Excel spreadsheet updates
**Normandy Park Swim Club Lifeguard and Swim Instructor**                          Summer 2017
**Lake Washington Rowing Club Youth Program Coach**                                Summer 2017

## PROFICIENCIES

**Languages:** BASH ◦ C ◦ C++ ◦ C# ◦ CSS ◦ HTML ◦ Java ◦ Javascript ◦ MATLAB ◦ MySQL ◦ PHP ◦ Python
**Tools:** Git ◦ ROS ◦ OpenCV ◦ Keras Neural Net ◦ 3ds Max
**Hardware:** Raspberry Pi ◦ Arduino ◦ Soldering

## RELEVANT PROJECT EXPERIENCE

**RoboSub Team**
    Training Keras neural net and writing OpenCV code to recognize course objects
**Stanton Concepts Tigr Lock – Software Development**
    Developed an application to check lock security
**GeoRPG – Mobile App**
    Building out back-end and Google Maps API integration for a location based game Android app
**Andrews Hall Vintage Rotary Phone Project**
    Leading a team to transform a late 19th-century wood wall telephone into a fully functional digital front desk phone with a Raspberry Pi and voice over Internet Protocol libraries
**Holy Names FIRST Robotics Competition Team**                        September 2014 - April 2016
    Founding member of the only all-girls FIRST team in the Pacific Northwest. Wrote autonomous methods, developed electrical systems, and designed and prototyped mechanical components.

## EXTRACURRICULAR ACTIVITIES

RoboSub Software Team, oSTEM, Women in Computing, Society of Women Engineers

## VOLUNTEER EXPERIENCE

Watershed Ecosystem Restoration, Northwest Harvest Food Sorting, Salmon Population Monitoring and Restoration