

# Fletcher Porter

Monrovia, CA • 626-321-6687 • me@FletcherPorter.com • <http://FletcherPorter.com> • Class of 2019

## Employment

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**UCSB Robotics Laboratory** (Undergraduate Researcher) — 2015–Present

- Advised by Professor Katie Byl
- Designing feet with gecko adhesive pads for Boston Dynamics LittleDog robot
- Designed roller skates to increase locomotive speed of RoboSimian

**NASA Jet Propulsion Laboratory** (Robotics Intern) — Summer 2014

- Researched cam-based robotic manipulator for use on RoboSimian
- Designed ventilation system for the in-lab laser cutter
- Conducted experiments to learn the behavior of gecko adhesive pads after many cycles
- Aided in design of stewart platform for use in zero-g testing

## Activities

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**FIRST Robotics, Suit Bots 4628** (Mentor) — 2011–Present

- Helped students learn how to use SolidWorks
- Team member, 2011–2015; Team Captain 2015; Business Manager 2014
- Wrote autonomous programs using encoders and line detection to improve repeatability
- Designed and tested a mount to attach controllers to robots, DFM for CNC and injection moulding

**Monrovia High School Band** (Treasurer) — 2011–2015

- French horn section leader, 2 1/2 years
- 1st Horn in Pasadena Youth Symphony Orchestra Philharmonic
- Study trumpet privately with Nolan Shaheed

## Education

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**University of California, Santa Barbara**, expected graduation 2019

- Majoring in Mechanical Engineering
- Wrote Wikipedia article on Optical PAYload for Lasercomm Science mission from JPL/Caltech
- Certified to work in UCSB machine shop

## Skills and Interests

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- 3-D Modeling with SolidWorks
- Machining with mills and lathes
- DFM for 3-D printing, laser cutting, CNC, and injection moulding
- Programming in C++, Python, Matlab, L<sup>A</sup>T<sub>E</sub>X, and Mathematica
- CPR Pro and Wilderness First Aid certified

## Awards

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- Louis Armstrong Award
- Eagle Scout Rank, Boy Scouts of America
- Excellence Award for Multimedia Writing for Optical PAYload for Lasercomm Science Wikipedia Article from UCSB Engineering Writing Program