

# Fletcher Porter

Monrovia, CA • 626-321-6687 • fp@suitbots.com • <http://fletcherporter.com> • Class of 2019

## Employment

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

- Designing feet with gecko adhesive pads for legged robots
- Designing 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

**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
- Led design of competition robot
- Wrote autonomous programs using encoders and line detection to improve repeatability
- Designed and tested a mount to attach phones to robots, DFM for CNC and injection moulding

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

- French horn section leader, 2 1/2 years
- Marched in the National Memorial Day Parade in Washington, D.C.
- Played 2nd Horn at Carnegie Hall
- 1st Horn in Pasadena Youth Symphony Orchestra Philharmonic
- Study trumpet privately with Nolan Shaheed

## Education

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

- Majoring in Mechanical Engineering
- Wrote Wikipedia article for JPL/Caltech Optical Payload for Lasercomm Science mission

## Skills and Interests

- 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,  $\text{\LaTeX}$ , and Mathematica
- CPR Pro and Wilderness First Aid certified

## Awards

- FIRST: Think Award, Inspire Award, Finalist Alliance, Gracious Professionalism Award (x4)
- Louis Armstrong Award
- Eagle Scout Rank, Boy Scouts of America
- Monrovia High School Math and Science Academy Graduate