

# Fletcher Porter

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## Employment

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

- **Researched** cam-based robotic manipulator for use on **DARPA** and **DTRA** robots
- **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** (Team Captain, Business Manager) — 2011–Present

- **Lead** design of competition robot
- Designed and built a thermoformed scoop
- Wrote autonomous programs using encoders and line detection to improve repeatability
- Managed finances and fundraised \$4,000 for the team

**Boy Scout Troop 147** (Eagle Scout) — 2008–Present

- **Senior Patrol Leader** at three consecutive summer camps
- Patrol Leader of Eagle Patrol
- Earned 23 merit badges

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

- 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

**Monrovia High School**, expected graduation June 2015

- AP Physics C: Mechanics; AP Physics C: E&M; AP Calculus AB; AP Chemistry; AP Statistics

**University of California, Santa Barbara**, starting Fall 2015

- Majoring in Mechanical Engineering

## Skills and Interests

3-D Modeling with **SolidWorks** (including sheet metal, weldments, and molds)

**Rapid Prototyping** with 3-D printers and laser cutters

C and Python, proficient

Documentation in engineering notebooks

## Awards

FIRST: Think Award, Inspire Award, Finalist Alliance, Gracious Professionalism Award (x4)

Louis Armstrong Award

Eagle Scout Rank, Boy Scouts of America

*References, transcript, CAD and code samples available upon request*