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

- Led 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

Pertinent Coursework

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: Nevada State Championship Think Award, Inspire Award, Finalist Alliance, Gracious Professionalism Award (x4)

Eagle Scout Rank, Boy Scouts of America