Eric Baumgarten

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EDUCATION

California Polytechnic State University, San Luis Obispo, California

- Masters of Science (M.S.) in Mechanical Engineering — Sep 2014 – Jun 2015
- Bachelors of Science (B.S.) in Mechanical Engineering — Sep 2010 – Jun 2014
- Cumulative GPA: 3.35

WORK EXPERIENCE

Jet Propulsion Lab (JPL), Pasadena, California

- Mechanical Engineer, Small Spacecraft Mechanical Engineering Section — Aug 2015 – Present
  - Designed the thermal and mechanical portion of proposed optical instrument to fly on SOFIA research plane
  - Managed design of thermally sensitive structure for spacecraft avionics
  - Responsible for cable hardware labeling scheme and implementation for on board International Space Station instrument
  - Formulated, manufactured and assembled ballistic shielding for high velocity impact testing

PolySat Spacecraft Design Lab, San Luis Obispo, California

- Mechanical Engineer, IPEX Cubesat — Apr 2012 – Jan 2015
  - Created detailed assembly procedures used to build the cubesat flight unit
  - Worked with vendor to manufacture hardware for cubesat engineering and flight units
  - Lead mechanical assembly effort to build cubesat flight unit in clean room environment
  - Performed thermal-vacuum and vibrational environmental testing to validate cubesat hardware using launch vehicle specifications
  - Design and built 3D printed enclosure for high altitude balloon test of cubesat's electronic components
  - Participated in the spacecraft commanding and data handling post successful satellite launch on 12/5/13
  - Presented results of mission at the Cubesat Developer's Workshop in 2014
- Lab Manager — May 2014 – Jun 2015
  - Provided guidance and oversight to 40-50 undergraduate students designing an building space hardware
  - Helped secure over $ 300,000 worth of funding for future cubesat missions and smaller tech demonstrations through proposal writing efforts
  - Provided outreach and education on cubesats via speaking engagements, tours of our lab and creating an engineering summer camp course

Space Systems Loral (SSL), Palo Alto, California

- Intern, Solar Array and Deployables — Jun 2013 – Sep 2013
  - Created detailed part and assembly drawings of ground support equipment used to build solar array panels for geosynchronous satellites
  - Redesigned test equipment by replacing manual input and measurement with a motor/ encoder assembly to increase automation and results accuracy

SKILLS

Design for manufacturing, Prototyping, mechanical drawings, GD&T, 3D CAD, PCB design, soldering, environmental testing, 3D printing, mechatronic assemblies, budget and schedule creation

SOFTWARE

Solidworks, Unigraphics NX, MATLAB, Excel-VBA, LaTeX, Adobe Photoshop, Adobe Illustrator

HONORS

- Eagle Scout: Boy Scouts of America — Jun 2009
- NASA Group Achievement Award: IPEX Cubesat — Jun 2014