# Eric S. Baumgarten

Education California Polytechnic State University San Luis Obispo

MS,BS Mechanical Engineering

June 2015

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Work Experience Mechanical Engineer: Jet Propulsion Lab (JPL), Pasadena, CA

2015-Present

- Developed configuration, mass budget, cost and schedule for air and spaceborne instrument proposals
- Designed and manufactured ground support equipment and assembly tooling
- Produced engineering part and assembly drawings with use of GD&T
- Created detailed assembly procedures for flight hardware

#### Mechanical Engineer: PolySat, San Luis Obispo, CA

Summer 2014

- Designed and tested 3D printed antenna constraint and release mechanism
- Aided in the manufacture and construction of new satellite ground station
- Performed analysis on IPEX Cubesat telemetry
- Performed duties as PolySat research lab manager

## Solar Array Intern: SSL, Palo Alto, CA

Summer 2013

- Worked on solar arrays for commercial geosynchronous satellites
- Created detailed engineering drawings for tooling and testing assemblies
- Redesigned test fixture to increase accuracy and automation
- Wrote test procedures for environmental testing

## **Engineering** Activities

### PolySat, San Luis Obispo, CA

2012-2015

- PolySat Lab Manager (June 2014-June 2015)
  - Managed Cubesat design lab consisting of around 60 multidisciplinary graduate and undergraduate students
  - Provided outreach and education on Cubesats
  - Wrote proposals to bring funding into the lab
- PolySat Mechanical Lead (January 2014 June 2014)
  - Organized a team of 8 undergraduate mechanical engineers in designing, testing and assembling the ExoCube cubesat
  - Working specifically on the integration and testing of the Exocube cubesat
- IPEX Cubesat Mechanical Lead (May 2012 December 2014)
  - Successfully Launched 12/6/13
  - Wrote procedures for and performed environmental testing on CubeSat
  - Wrote documentation to ensure CubeSat compliance with Launch provider
  - Manage structure design and CAD

# Honors

## Eagle Scout: Boy Scouts Of America

2009

• Designed, built, and installed two 4' x 6' entrance signs for the Coppell Nature Park

#### NASA Group Achievement Award: IPEX CubeSat

2014

# Software Experience

Very Proficient: Solidworks, NX, Pro Engineer, MATLAB, EES, LATEX,

Adobe Photoshop, Adobe Illustrator, Microsoft Office **Proficient:** C++ , Fluent, ABAQUS, Eagle CAD