

# S. CHASE BUCHANAN

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## SUMMARY

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As an engineer, I have been involved with each stage of product development: design, documentation, fabrication, testing, and quality control. I excel in creative environments and look to fill positions that the team needs. Recently, I have specialized in rapid prototyping techniques like 3D printing and laser cutting to reduce lead times and cost.

## SKILLS

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- CAD Solid Works, Excel
- Iterative Design
- Rapid Prototyping
- Part Fabrication
- Design: Documentation and Control
- Managing Product Scope

## WORK EXPERIENCE

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**Mechanical Design Engineer** *Sept. 2014–Present*  
**Dental Engineering Laboratories** *Santa Barbara, CA*

- Created a system that integrates with existing dental instruments to increase usability and appearance
- Determining the feasibility and approach of an idea, and setting the scope for the project
- Reverse engineering existing products to modify and fulfill new requirements
- Implementing a quality management system to control products
- Documenting accordance to ISO standards on 12 products to obtain CE markings to sell in Europe

**On-Call Exhibit Technician and Volunteer** *Aug. 2015–April. 2017*  
**Exploratorium: The Museum of Science, Art, and Human Perception** *San Francisco, CA*

- Aided with exhibit repair, fabrication, and construction
- Gained fabrication experience and learned new techniques for manufacturing and design
- Contributed to the approach and fabrication of a large-scale woodworking project

**Jr. Mechanical Engineer** *April. 2013–Dec. 2014*  
**Advanced Scientific Concepts** *Santa Barbara, CA*

- Designed a robotic test platform, electronics packaging, test fixtures, and accessories for optical assemblies
- Managed the Material Index Usage List containing 200+ parts for a space project; requiring knowledge of military specifications and procedures
- Contributed to a published paper on autonomous aerial refueling (<http://www.mdpi.com/1424-8220/15/5/10948>)
- Reorganized and managed the structure of product trees

**Robotics and Mechatronic Mentor** *Sept. 2012–April. 2016*  
**Dos Pueblos Engineering Academy** *Santa Barbara, CA*

- Mentored 30+ students in developing a concept into a design, creating part and assembly documentation, managing part fabrication, assembling in an organized manner, and testing the final product
- Led students on the robotics team to design, fabricate, and assemble a custom drivetrain in 6 weeks where each wheel is independently powered and capable of rotating 360 degrees

**Manufacturing Intern** *Sept. 2011–Nov. 2012*  
**Intouch Health** *Goleta, CA*

- Managed the recycling of 20+ decommissioned robots; parts were re-worked for stock, sold, or recycled
- Increased manufacturing efficiency by designing assembly fixtures and organizing tool layout

## EDUCATION

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**University of California, Santa Barbara** *Class of 2013*  
**Mechanical Engineering**, Bachelor of Science *Santa Barbara, CA*

- Dean's List