**Troy Unger**

El Cajon, CA 92020

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Bachelor of Science in Engineering Technology honor student and Mechanical Design Engineer seeking a full-time position in Mechanical Engineering and Mechanical Design. Adept with design, project management, and leadership as well as knowledge of manufacturing and prototyping practices.

**Design**

Proficient in multiple aspects of the design and production process, and in providing accurate and detailed drawings and models for marketing and production use.

* Concept artwork
* CAD models
* 3D printed prototypes
* Sheet metal patterns
* Hand sketches
* Product rendering

**Resource Management**

Adept with following procedures and developing new processes to maintain current production and deliver new projects

* Supplier coordination
* Build to Print drawings
* Design and Spec packages
* Product design
* Design team leadership
* PDM management

**Technology**

Skilled with multiple software packages and emerging prototyping and production technologies.

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* Solidworks
* MS Office Suite
* Revit
* 3D printing
* 3D scanning
* AutoCAD

# EDUCATION

**Bachelor of Science in Engineering Technology**, 2023

Concentrations in: Project Management & Unmanned Aerial Systems

Embry-Riddle Aeronautical University, Worldwide Campus

GPA: (3.86)

Honors: Magna Cum Laude, Alpha Sigma Lambda Honor Society

**Certifications**

CSWP - Certified Solidworks Professional, acquired 2/2015

AutoCAD 2013 Certified Professional, acquired 4/2013

# WORK EXPERIENCE

TSU Design, El Cajon CA February 2020 – Present

## Mechanical Design Engineer

* Develop 3D solid and surface models based on client needs
* Design, fabricate, and testing human interface devices (HID) for use in recreational gaming and flight training
* Utilizing CAD, CAM, and 3D printing to produce completed components based on client specifications

Paramount Automotive, Ontario CA October 2019 – January 2020

## Mechanical Designer/Concept Designer

* Translated the requirements and product goals of the project management team into functional and appealing designs
* Worked with sales and marketing teams to determine the target audience for new products
* Created concept artwork and production CAD models
* Applied 3D printed prototypes, VR, CAD, and hand sketches to accurately convey design intent to management and marketing teams

Transamerican Manufacturing Group/Smittybilt, Chula Vista CA February 2015 – October 2020

## Mechanical Designer/Concept Designer

* Design lead for 3-person Smittybilt brand design team.
* Responsible for new product designs for Jeeps and multiple consumer truck models.
* Worked with domestic and international suppliers to ensure products were delivered to specifications.
* Conducted first article reviews of production samples for new products.
* Administered in-field product testing for new and existing products.
* Worked with brand management in planning future products and product lines.

Flyit Simulators, Carlsbad CA August 2013 – February 2015

## Mechanical Designer/Concept Designer

* Developed new products flight training for general aviation and helicopter simulators.
* Designed FTD level 4 Beechcraft 1900D simulator and AATD for Sikorsky S-76C++.
* Worked with vendors and subcontractors to create custom metal, plastic, and electronic components.
* Assisted in continuing support for installed simulators both in the US and Internationally.
* Created custom scenarios and models to meet customer training requirements.

# ADDITIONAL EXPERIENCE

CNP Signs & Graphics, San Diego, CA

## CAD Illustrator/IT

Continental Datagraphics, a Boeing Company, San Diego, CA

**CAD Illustrator**

**PATENTS:**

Hatch, Thomas et al. 2017. Vehicle Accessories. US Patent 011014517B2. Filed October 24, 2018, and issued May 25, 2021.

Hatch, Thomas et al. 2018. Vehicle Accessories. US Patent 11,524,633B2. Filed May 25, 2021, and issued December 13, 2022.

Unger, Troy et al. 2019. Wheel Carrier Bracket Assembly. U.S. Patent 2020/0298917A1. Filed March 24, 2020, and issued September 24, 2020.

Unger, Troy. 2019. Wheel Carrier Bracket Assembly. U.S. Patent D918,007S. Filed March 24, 2019, and issued May 4, 2021.