

# Sam Christensen

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## Skills

Applications: CATIA, SOLIDWORKS, AutoCAD, Inventor, Confluence, JIRA, MATLAB  
Fabrication: Additive Layer Manufacturing, Lathe, Mill, MIG, TIG, Shop Equipment, Hand and Power Tools  
Other: 2018 Infiniti Engineering Academy USA Finalist, Bell Helicopter Composite Production Training, Allen Bradley RS Logix 5000 PLC Troubleshooting and Programming

## Work Experience

- Lyons Motor Car – *Freelance Mechanical Engineer – New York, New York* Sep 2020 - Present
- Produced suspension and chassis components in SOLIDWORKS for production of Streamliner Super Sport
  - Evaluated designs for interference, tolerance, and improved manufacturability
  - Effectively corresponded remotely as part of a team of designers to meet deadlines while ensuring design quality
- Tesla – *Production Control Equipment Engineering Intern – Fremont, California* Jan 2019 – Jan 2020
- Provided mechanical design support to controls engineers to develop enhancements of model 3 instrument panel receiving conveyor leading to an 85% decrease in machine downtime
  - Project management and design of ergonomic lift assist using rapid prototyping for handling of brake rotors by associates improving the safety of the process without decreasing cycle time
  - Designed and coordinated the fabrication of dollies as part of a multi-departmental team for the addition of new vehicle parts to be installed on the model 3
  - Utilized top-down and parametric design to create 3D models and technical drawings in CATIA to industry drafting standards using GD&T practices
  - Drafted technical work instructions to aid in the installation and maintenance of production critical equipment to reduce the mean time to repair
- Texas Tech University – *Machine Shop Student Assistant – Lubbock, Texas* Jun 2018 – Dec 2018
- Performed precision machine work on mills and lathes for research laboratories within a 0.002" tolerance
  - Taught students to safely utilize shop equipment for academic projects including MIG and TIG welders, manual mills and lathes, and shop equipment
- Classic Mazda of Denton – *Master Automotive Repair Technician – Denton, Texas* Nov 2010 – May 2014
- Achieved ASE Master Technician and Mazda Master Technician status
  - Collaborated with engineers from the Mazda headquarters to assist with new product failure analyses
  - Performed quality repair work in accordance to factory standards using in-depth product knowledge
  - Effectively explained technical diagnostics and repairs to customers without automotive repair knowledge

## Additional Experience

- TTU Formula SAE – *President – Texas Tech University Lubbock, Texas* Sep 2017 – Aug 2019
- Set design goals, timelines, and team objectives which led to an eight-place improvement in standing
  - Managed and mentored a team of six design leads and fifty members
  - Individually handled all administrative tasks including leading meetings, making purchases, and acting as the point of contact for university faculty and sponsors
  - Obtained sponsorships worth \$80,000+ to fund fabrication of the race car
  - Organized outreach and sponsorship events to foster positive relationships with the community
- TTU Formula SAE – *Aerodynamics Design Lead – Texas Tech University Lubbock, Texas* Sep 2016 – Aug 2018
- Produced aerodynamic design improvements and implemented features resulting in 186-pound downforce increase to improve driver confidence of vehicle handling characteristics
  - Designed and analyzed body panels, air foils, and supporting composite structures in SOLIDWORKS with integrated Computational Fluid Dynamics (CFD) software
  - Developed and fabricated male and female molds and tooling for composite part fabrication to produce aerodynamic components on site at Bell Helicopter

## Education

- Texas Tech University – *Lubbock, Texas* Aug 2020 - Present
- Master of Science in Manufacturing Engineering
- Texas Tech University – *Lubbock, Texas* Sep 2013 - May 2020
- Bachelor of Science in Mechanical Engineering, Minor in Mathematics GPA 3.6
- Lincoln College of Technology – *Grand Prairie, Texas* Aug 2009 – Sep 2010
- Automotive Technology Certificate