**CRAGUN SCOTT**

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Mechanical Engineering Intern

| **Education** |
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**B.S., Mechanical Engineering** *Minor, Computer Science* December 2023

Utah State University, Logan, Utah GPA 3.71

* Maintained 3.71 GPA while working 15-30 hour a week job

| **Certificates** |
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Certified SolidWorks Associate (CSWA) Oct. 2019

| **Work Experience** |
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**Parallel Computing Intern -** Los Alamos National Lab, Los Alamos, NM June 2023—Aug 2023

* Learned how to optomize, maintain, test, and run high efficiency parallel codes
* Researched faster computing techneques independently and with a team
* Attended lectures and workshops aimed towards improving speed and efficiency of code

**Engineering Assistant -** Space Dynamics Laboratory, North Logan, UT, June. 2021—May 2023

* Learned to follow written and oral procedures
* Developed greater 3D CAD modeling skills
* Lead the design, assembly, and testing of a customer program
* Gained greater proficiency with Microsoft Excel and Word
* Fabricated thermal straps for satellite thermal system for internal and external customers
* Performed conductance testing of space flight hardware in thermal vacuum chambers
* Assisted operations, tests, and maintenance in thermal straps research design lab
* Followed written and oral procedures for testing and wrote reports on the test results

**Hardscapes Installer -** A&D Landscaping, Smithfield, UT, Sept. 2020—April 2021

* Learned to operate machinery for excavation and material transport

**Framer -** Farrell Brothers Construction, Plain City, UT May 2020— Aug 2020 &

* Learned to read and follow residential home building blueprints March 2018—Aug. 2018
* Developed group communication and construction job site work skills

**Resident Assistant -** Utah State University, Logan, UT Aug. 2019—May 2020

* Mentored and provided resources to 30 residents
* Lead planning and execution of building wide programs

**Assistant Maintenance -** Utah State University Student Center, Logan, UT Jan. 2019— June 2019

* Learned how to fix and maintain HVAC units and other climate control systems
* Developed problem solving skills used to fix broken machinery

| **Course Work and Engineering Projects** |
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**USU Senior Design Project for Nucor Utah** Aug. 2022—May 2023

* Worked on a design team to build a cart to safely enter and exit railcars in a shipping bay
* Participated in the product definition, brainstorm, design, and analysis phases of the project
* Assisted the team as Project Manager to ensure all tasks and milestones were completed on time

**Coding Projects**

* Refractored, designed and implemented code for a complex number fractal image generator
* Designed and implemented code for a max-flow, min-cut graph algorithm
* Designed and implemented code for processing accounting data from large data files
* Researched and implemented an alternative method to speed up HPC parallized scientific code at LANL

**School Projects**

* Worked on a machine design class team to design a gear reducer box for final project
* Worked with an instrumentation design team to optimize the exit velocity of a potato cannon
* Planned, designed, built a Footy class RC sailboat as a team of 4

**Trebuchet**

* Designed and built a pumpkin throwing trebuchet for USU ASME North Logan pumpkin toss
* Lead a team of 7 in material planning, purchasing and assembly of throwing arm and weight bucket

**SolidWorks**

* Drafted an accurate assembly of a serve desk bell
* Reverse engineered a push/pull toggle clamp

**RC Sailboat**

* Planned, designed, built a Footy class RC sailboat as a team of 4
* Learned how to conduct design, structural analysis, and building processes

**Personal Projects**

* Fixed up personal car by replacing oil, brake assemblies, timing belt, water pump, and interior upholstery
* Repurposed surplus military boxes for storage by sanding, welding hinges and patches, and painting

| **Technical Skills** |
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* Knows how to use woodworking power tools and welding equipment machining
* Operator of skid steer and mini excavation equipment
* Proficient in Python, Java, Javascript, and C++ programing languages, git and computer terminals
* Proficient in writing code documentation and algorithm analysis
* Expericence and understanding with algorithm construction and analysis
* Has worked in a cleanroom environment to clean and assemble parts
* Has experience machining metal with a mill and lathe
* Proficient in proposal writing and presenting of design ideas and information
* Proficient with using Microsoft Word, Excel and in 3D CAD with SolidWorks, Solid Edge, and onshape
* ***or*** Proficient in Microsoft Word, Excel and in Python, Java, Javascript, and C++ programing languages
* ***or*** Proficient in 3D CAD with SolidWorks, Solid Edge, and onshape

| **Leadership and Achievements** |
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SDL Student Scholar Award – Space Dynamics Laboratory, North Logan, UT Aug 2022

* Received award for leading the design, assembly, and testing of a customer thermal strap program
* Prepared and presented a presentation about the program to company leaders

Volunteer – Non-profit Church Organization, Richmond, Va.

* Developed strong work ethic by working 12 hours a day to achieve weekly goals
* Lead groups of 8 volunteers in their work and gave trainings on productivity and teaching skills
* Developed public and interpersonal communication skills

Eagle Scout Aug. 2014

* Lead a group of volunteers in re-digging, and preserving a drainage trench for a non-profit farm