

Carter J. Schultz

918 14th Street
Boulder, CO
80302

CarterJSchultz@gmail.com
www.CarterSchultz.com
(307) 631-8060

EDUCATION

University of Wyoming, Laramie, WY
Bachelors of Science in Mechanical Engineering - Spring 2015
G.P.A. 3.7/4.0

EXPERIENCE

- | | | |
|---|--------------------------------|-----------------|
| Robotics Engineer | Neya Systems
Pittsburgh, PA | 2016 - Present |
| <ul style="list-style-type: none">• Developed modular planning engine for multi-robot mission planning• Created user interfaces for visualizing and manipulating large graph networks• Developed a feed forward simulation framework for performance prediction• Performed profiling and optimization of high performance compute code | | |
| Launch Automation Engineer | SpaceX
Hawthorne, CA | 2015-2016 |
| <ul style="list-style-type: none">• Upgraded tooling for automated rocket processing and recovery operations• Developed vision system for autonomous alignment of rocket and ground equipment• Created probabilistic collision models for automated crane operations• Designed and fabricated custom sensor packages to survive launch environment | | |
| Robotics Intern | Neya Systems
Pittsburgh, PA | Summers 2013-14 |
| <ul style="list-style-type: none">• Developed ROS interfaces for autonomous operation of micro-UAVs• Created OpenCV based object tracking software for automated surveillance• Implemented mission behaviors and autonomous capabilities for mobile robots• Designed and manufactured custom components for robotic platforms | | |
| EPSCoR Undergraduate Fellow | EPSCoR Program
Laramie, WY | 2012 - 2014 |
| <ul style="list-style-type: none">• Developed microcontroller driven graphics system for high resolution LCD• Created microcontroller compatible algorithms for robotic navigation• Designed distributed computation system for microcontroller networks | | |

Systems Programmer

Square One Systems Design
Jackson, WY

Summers 2010-12

- Solved complex kinematic and positions planning problems on six-DOF parallel robots
- Programmed natural and adaptive human interfaces for robotic control in NI-Labview
- Implemented autonomous functionality for mobile platforms including: path-planning, obstacle detection, mapping, and error recovery
- Developed cataloging and database systems for product quality assurance

RELEVANT SKILLS

Mechanical

- Machining: Mill, Lathe, CNC
- 3D Modeling: Solidworks, NX, Inventor, Blender, OnShape
- FEA: Femap, Abaqus, ANSYS
- Mechanical Tolerances with GD&T

Electrical

- Microcontroller Debugging
- Electronics Soldering and Assembly
- Signal Capture and Analysis
- Electronic Design for Robotic Systems

Software

- Development with Linux and Windows
- Robotic Algorithms: Path-Planning, Point Cloud Analysis, Kinematic Modeling, Probabilistic Data Filtering, Machine Vision, and Grip Analysis
- Proficiency With: Git, CMake, Boost, ROS, OpenCV, and PCL

PROGRAMMING LANGUAGES

Labview

Experience: 6 years
Proficiency: Expert

C++/C

Experience: 5 years
Proficiency: Expert

Matlab

Experience: 3 years
Proficiency: Intermediate

Java

Experience: 3 years
Proficiency: Intermediate

Mathematica

Experience: 2 years
Proficiency: Intermediate

Python

Experience: 2 years
Proficiency: Novice

HONORS AND AWARDS

University of Wyoming Trustees Full Scholarship
Dean's List of Distinguished Students: Fall 2011 - Spring 2012
Tau Beta Pi Outstanding Freshman Award
Kinser Jazz Festival Outstanding Musicianship Award