

TRAVIS DRIVER

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EDUCATION

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| Georgia Institute of Technology <i>Doctor of Philosophy, Aerospace Engineering</i> Advisor: Professor Panagiotis Tsiotras | 2019 - Present GPA: 4.00/4 |
| The University of Texas at Austin <i>Bachelor of Science, Computational Engineering, High Honors</i> | 2015 - 2019 GPA: 3.93/4 |

RESEARCH EXPERIENCE

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| Dynamics and Control Systems Lab (DCSL) <i>Graduate Research Assistant</i> | August 2019 - Present Atlanta, GA |
| <ul style="list-style-type: none">Investigating perception, estimation, and control techniques for proximity operations in space | |
| Autonomous GNC Lab <i>Undergraduate Research Assistant</i> | September 2018 - May 2019 Austin, TX |
| <ul style="list-style-type: none">Designed and implemented computer vision algorithms for autonomous navigation of robotic rover platformImplemented feature-based detection and tracking algorithms to resolve relative pose of target objectDemonstrated successful autonomous rendezvous operation of robotic platform with target object | |
| Texas Spacecraft Lab <i>Algorithms Team Lead (Sept. 2017 - Jan. 2018), Systems Engineer (June 2017 - Sept. 2017)</i> | June 2017 - January 2018 Austin, TX |
| <ul style="list-style-type: none">Led team of 5+ engineers to implement machine learning and computer vision algorithms to detect target spacecraftCreated a Python-based GUI to track and display spacecraft electrical power systems dataConducted workshops to teach 20+ new members core concepts in Python and Git | |
| Institute for Computational Engineering and Sciences <i>Undergraduate Research Assistant</i> | May 2017 - August 2017 Austin, TX |
| <ul style="list-style-type: none">Implemented and evaluated novel clustering methods for an optimization and integration software libraryConstructed programs to evaluate an advanced uncertainty quantification software library (QUESO) in C++Improved variable assignment and subroutine methods to increase script efficiency of test programs | |

INDUSTRY EXPERIENCE

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| Sandia National Laboratories <i>Software R&D Intern</i> | June 2019 - August 2019 Albuquerque, NM |
| <ul style="list-style-type: none">Implemented Visual Simultaneous Localization And Mapping (VSLAM) algorithms for GPS-denied autonomous drone navigationTrained and optimized CNN to efficiently identify objects in x-ray images | |
| Northrop Grumman <i>Guidance, Navigation & Control Engineer Intern</i> | January 2018 - August 2018 Wallops Island, VA |
| <ul style="list-style-type: none">Implemented novel Inertial Navigation System (INS) calibration methods improving performance by ~ 43%Designed a software interface to configure the on-board Flash memory of the Attitude Control SystemCreated an automated testing module to collect data and analyze the performance of the developmental INSConducted post-flight analysis of the reported angular rates and attitude of the INS to evaluate performance | |

TEACHING EXPERIENCE

COE 301: Introduction to Computer Programming

August 2017 - December 2017

Teaching Assistant, The University of Texas at Austin

Austin, TX

- Aided in teaching core programming concepts in MATLAB, C++, and Fortran to a class of 100+ engineering students
- Taught students course material one-on-one through 2 one-hour sessions of office hours per week
- Assisted in creating course material and homework assignments focused on key programming concepts

HONORS & AWARDS

President's Fellowship, *Georgia Institute of Technology* (2019)

University Honors, *The University of Texas at Austin* (2015 - 2019)

SKILLS

Programming: C, C++, C#, Python, MATLAB, Embedded, Fortran, Bash, Java

Software: ROS, GTSAM, OpenCV, TensorFlow, Blender, SolidWorks

Certifications: Technician Class Operator Radio License, NASA GSFC Electrostatic Discharge Operator