

# Kyle R. Rakos

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## EDUCATION

**Purdue University**, West Lafayette, IN

Bachelor of Science in Computer Engineering

Minor in Political Science

Study abroad experience in Spring 2016 at Universidad Carlos III in Madrid, Spain

May 2017

GPA 3.60/4.00

Trustees Scholarship

## PROFESSIONAL EXPERIENCE

**Texas Instruments**, Dallas, TX

*Systems Engineer in Space Power*

Feb 2020 – Present

- Define new integrated circuits through market analysis and collaboration with the design team

*Applications Engineer*

Aug 2017 – Feb 2020

- Completed a one-year rotation program in TI's High Reliability and DLP Pico group
- Designed and created two ground up isolated flyback converter reference designs for space satellite applications
- Built a program to accurately display images synchronized with external triggers for 3D scanning applications
- Provided electrical and software engineering customer support for power electronics and DLP Pico projectors
- Updated and create external technical documentation for various integrated circuits and evaluation boards

**GE Aviation Systems**, Grand Rapids, MI

June 2016 – Aug 2016

*Quality Engineering Intern*

- Created custom logic for accurate first time yield calculations in order to improve company efficiency
- Received the Above and Beyond Award for successfully delivering results during the internship

**Space Exploration Technologies**, Hawthorne, CA

May 2015 – Aug 2015

*Production and Test Intern*

May 2014 – Aug 2014

- Designed, sourced components, and programmed an automated, electromechanical system for implementation on the production floor
- Accumulated raw data into dynamic, interactive reports for valuable analysis resulting in improved production scheduling, reliability, and speed

## PROJECT EXPERIENCE

**IEEE Remotely Operated underwater Vehicle (ROV) Team**

*Team Captain*

June 2014 – June 2017

*Sponsorship Coordinator*

Sept 2013 – June 2014

- Revitalized a team in 2015 that previously did not compete to qualify for the international competition through proper delegation, deadline setting, and talent acquisition
- Led the largest interdisciplinary group of students in the team's history to design, construct, and test a vehicle for an 8<sup>th</sup> place finish in the 2017 MATE International ROV Competition
- Published an article about the team in the September 2017 issue of the IEEE Computer Society magazine as an award for the best technical report at the 2017 competition
- Selected for the 2016 Flying Fish Award for exemplary leadership and passion for the field out of over 500 competitors

**Senior Design Project (BB-8 Astromech droid)**

Fall 2016

- Designed, manufactured, and populated a PCB to control a robot using a STM32 microcontroller, inertial measurement unit (IMU), Bluetooth Low Energy IC, motor controller, and various power conversion from a battery

## RELEVANT SKILLS

- Altium and EAGLE PCB design software
- C, Python, MATLAB, SQL, PHP, and HTML programming
- Lab equipment knowledge, including oscilloscopes, multimeters, function generators, power supplies, frequency analyzers, thermal streams, and soldering irons