# Kyle R. Rakos

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#### **EDUCATION**

Purdue University, West Lafayette, INMay 2017Bachelor of Science in Computer EngineeringGPA 3.60/4.00Minor in Political ScienceTrustees Scholarship

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

## PROFESSIONAL EXPERIENCE

## Texas Instruments, Dallas, TX

Aug 2017 - Present

Applications Engineer

- Completed a one-year rotation program in TI's High Reliability and DLP Pico group
- Designed and created two grounds 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 customer support for military power electronics and DLP Pico projectors
- · Reviewed and corrected datasheet and application reports 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
- Encouraged cross-team collaboration in order to rigorously validate various internal metrics
- 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

Sponsorship Coordinator

June 2014 – June 2017

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
- Implemented the mechanical system to drive BB-8 and provide realistic droid movements

#### RELEVANT SKILLS

- Altium and EAGLE PCB design software
- C, Python, MATLAB, SQL, PHP, assembly, and HTML programming
- LabVIEW programming knowledge, including use with National Instruments' CompactRIO
- Lab equipment knowledge, including oscilloscopes, multimeters, function generators, power supplies, frequency analyzers, thermal streams, and soldering irons