Kyle R. Rakos

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EDUCATION

Purdue University, West Lafayette, IN — May 2017
Bachelor of Science in Computer Engineering — GPA 3.60/4.00
Minor in Political Science — Trustees Scholarship
Study abroad experience in Spring 2016 at Universidad Carlos III in Madrid, Spain

PROFESSIONAL EXPERIENCE

Texas Instruments, Dallas, TX
Systems Engineer in Space Power — Feb 2020 – Present

- Define and execute new and industry leading radiation-hardened ICs (integrated circuits) through market analysis and collaboration with cross-functional teams including design, verification, validation, and test
- Aid debugging ICs at all stages of product development including design simulations, silicon characterization, and system level PCB validation
- Create circuit PSPICE models to aid customer design analysis and development
- Interact with various space customers to understand their technical needs and formulate design solutions utilizing both new and existing products

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 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 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

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

- 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 8th 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, PSPICE, SQL, PHP, and HTML programming
- Lab equipment knowledge, including oscilloscopes, multimeters, function generators, power supplies, frequency analyzers, thermal streams, and soldering irons