Emilio Gordon

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EDUCATION

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN
B.S. Aerospace Engineering
Expected May 2019 | Urbana, IL
Cum. GPA: 3.02

SKILLS

Programming

Matlab Java HTML
Python CSS PHP
LabVIEW LaTeX Linux
JavaScript C/C++

Hardware

NX 10 ANSYS STK
Arduino Laser Engraving
Solidworks Raspberry Pi
TIG Welding NX Thermal Sim
Pyrometric Interferometry

COURSEWORK

Aerospace Control Systems
Incompressible & Compressible Flow
Mechanics of Aerospace Structures
Aerospace Dynamic Systems
Rocket & Electric Space Propulsion
Orbital Mechanics
(Lecturer & Instructor)
Intro to Satellite Development

AWARDS

2018 - Dean's List
2017 - Michael A. Miller Aerospace Engineering Innovation Award
2016 - President's Award Scholar
2015 - ITF Fifty for the Future

INTERESTS

Research

- Advanced Space Propulsion
- Deep Space Exploration
- Deep Learning and Neural Networks
- Mission Planning & Design
- CubeSat and SmallSat
- Entry, Descent, and Landing

Personal

- Long Distance Cycling
- Cooking

RESEARCH

MULTI-MODE MICROTUBE-ELECTROSPRAY PROPULSION

Lead Thermal Researcher — Aug 2017 – Present | UIUC

- Research and development into multi-mode propulsion
- Overseeing technological advancement from TRL3 to TRL5
- Performing ANSYS thermal simulations on various thruster assembly configurations
- Designing experiment procedures for temperature measurement and simulation comparison
- Developed data acquisition software for transient thermal test using LabVIEW
- Closely working with electric propulsion test systems including vacuum chambers and cryocoolers

SATELLITE DEVELOPMENT ORGANIZATION: LAICE

Undergraduate Researcher — Aug 2015 – Mar 2018 | UIUC

- Co-writer on two NASA accepted USIP proposals for $500,000 research grant
- Developed data acquisition software for pyrometric interferometry procedures using LabVIEW, improving test accuracy by 60%
- Clean room trained with experience working on satellite assembly
- Performed critical satellite ADCS tests using Helmholtz cage

EXPERIENCE

LECTURER

University of Illinois — Jan 2017 – Jan 2018 | UIUC

- Planned and taught a semester long university credited course.
- Oversaw student development and integration into university's satellite program.
- Involved in the research and design of new course and materials
- Taught over 30 students throughout the two semesters of the course

LECTURE DEMONSTRATION SPECIALIST

UIUC Physics Department — Aug 2016 – Present | UIUC

- Communicate with professors regarding lecture demonstration materials

ACTIVITIES

NASA BIG IDEA

Team Lead — Aug 2016 – Feb 2017 | UIUC

- Led a six person team in the design of a fully electric lunar space tug
- Applied a wide range of aerospace concepts to develop a modular, adaptable design for a lunar space tug

NASA MICRO-G NEXT

Co-Designer, Ed-Out Specialist — Nov 2015 – Jul 2016 | UIUC

- Designed and constructed a tool that can operate in neutral buoyancy
- Addressed current deep space exploration problems faced by NASA
- Accepted as 2016 Micro-G finalist