

Emilio Gordon

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EDUCATION

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

B.S. AEROSPACE ENGINEERING
Expected May 2019 | Urbana, IL
Cum. GPA: 3.12

SKILLS

PROGRAMMING

Python Matlab HTML
Tensorflow 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
- Machine Learning
- Mission Planning & Design
- CubeSat and SmallSat
- Entry, Descent, and Landing

PERSONAL

- Long Distance Cycling
- Cooking

RESEARCH

MULTI-MODE MICROTUBE-ELECTROSPRAY PROPULSION

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 validation
- Developed data acquisition software for transient thermal test using LabVIEW
- Closely working with electric propulsion test systems including vacuum chambers, turbo-pumps and cryocoolers
- Developed a system for scanning and characterizing microscopic structures with accuracy up to 10 microns.
- Trained and implemented Tensorflow neural networks to detect microscopic channels on thruster surface.

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

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