William S Gullotta

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EDUCATION

UNIVERSITY OF LEICESTER
Jan 2018 | Leicester, U.K.
MSc Space Exploration Systems
with Distinction

BOSTON UNIVERSITY
Jan 2015 | Boston, MA
BS Mechanical Engineering
Aerospace Concentration

COURSEWORK

Compressible Flow and Propulsion
Human Spaceflight
Orbital Mechanics
Planetary Science
Planetary and Space Environments
Solar and Space Physics
Space Nuclear Power
Space Instrument Theory and Design
Spacecraft Systems
Systems Engineering

TECHNICAL SKILLS

SOFTWARE
SOLIDWORKS · Autodesk Inventor
GRAS/GEANT4 · SPENVIS
Siemens NX 8.5 · CATIA V5
EagleCAD · COMSOL
Microsoft Office · Apple iWork
Adobe Photoshop & Illustrator

MACHINE
MakerBot Replicator
Stratasys Dimension Elite
DATAQ DI-718B
NC Mill and Lathe
Micro-TIG Welder

PROGRAMMING
MATLAB · LaTeX
Arduino · Unix/Linux
GDML · Python

CERTIFICATIONS
ISO 6000 Clean Room

EXPERIENCE

AEGIS INDUSTRIES, LLC | DEVELOPMENT PROJECT MANAGER
Apr 2016 - Present | Rockville, MD
- Direct the technical development of devices that test electrical output from electroshock weapons (ESW)
- Manage team of 4 interdisciplinary engineers and $3 million in project budgets
- Validate measurement protocols and results with independent laboratories
- Advise global regulatory agencies on establishment of ESW standards

University of Leicester Space Research Center | GRADUATE RESEARCHER
Oct 2016 - Mar 2017 | Leicester, UK
- Designed and performed test procedures for the optics of a satellite NO_x spectrometer
- Performed tests to characterize the noise, sensitivity, and saturation of camera sensor and troubleshoot signal issues

FuelCell Energy | MECHANICAL RESEARCH ENGINEER
May 2016 - Sep 2016 | Danbury, CT
- Utilized Autodesk Inventor and SOLIDWORKS to design components and simulate high temperature flow for experimental Solid Oxide Fuel Cells
- Constructed components and test equipment in conjunction with machine shop
- Redesigned fuel cell intakes to sequester CO_2 from natural gas power plants

Synectic Medical Product Development | CONTRACT ENGINEER
Feb 2016 - May 2016 | Milford, CT
- Designed mechanical, electrical, and tooling components for medical devices in SOLIDWORKS and fabricated prototypes in machine shop
- Developed and implemented data acquisition system for testing of prototypes ranging from basic circuit validation to high sensitivity pressure and leak testing

SIKORSKY AIRCRAFT CORPORATION | ENGINEERING INTERN
May 2013 - Mar 2015 | Stratford, CT
MANUFACTURING TECHNOLOGY INNOVATION
- Created proposal for manufacturing simulator to virtually test new technology
- Identified technologies for future integration in manufacturing processes
BLADES ENGINEERING
- Revised composite blade layup methods reducing yearly production costs by $280,000
- Designed tools and processes to improve manufacturing quality
- Produced mechanical drawings for tools and implemented on manufacturing line
SIMULATION ENGINEERING
- Designed mechanical components for helicopter flight simulators
- Fabricated designs with 3D printers and in cooperation with machine shop
- Installed mechanical components, avionics, and wiring into simulators

Boston University Student Satellite Lab | ATTITUDE DETERMINATION ENGINEER
Sep 2013 - Jan 2015 | Boston, MA
- Designed circuit and PCB for a nanosatellite attitude control system
- Populated PCB, fabricated test housing, and developed test plan for sensor

AWARDS

2018 | University of Leicester Physics and Astronomy Departmental Honors
2017 | ERASMUS+ Grant Award: Politecnico di Torino and ISAE-SUPAERO
2015 | Appalachian Trail Conservancy 2000 Miler Award
2014 | Boston University Dept of Mechanical Engineering Senior Design Award