⊕ OBJECTIVE

Highly motivated, experienced, and versatile engineer is looking for a lead technical position that requires passion for design, analysis, and manufacturing of challenging electromechanical systems.

⊕ EXPERIENCE | 2020-PRESENT

Linthicum, MD

1) Northrop Grumman Corp., Mission Systems Sector
Sr. Staff Chief Engineer (Network Information Systems)

2021 ◄─► PRESENT

►Technical leader of a multi-disciplined development team:
- Mechanical/electrical designers
- Structural analysts
- Software/firmware engineers
- Operations managers

►Responsible for all aspects of communications arrays hardware development:
- Systems engineering/requirements management
- Mechanical design/analysis
- Environmental qualification
- Range/EMI testing

►Extensive experience with electronics hardware manufacturing operations:
- RF and digital circuit boards
- Power supplies
- Multi-layered composites
- Brazed aluminum assemblies

►Detailed knowledge of platform integration activities:
- Interface definition
- SWaP analysis
- Cable routing

Annapolis, MD

2020 ◄─► 2021

2) Northrop Grumman Corp., Mission Systems Sector
Engineering IPT Lead (Undersea Systems)

►Oversaw drafting and manufacturing of a subsea electronics chassis
- Led system engineering effort in creating FAT and Qualification documentation
- Performed design verification on EMD chassis and identified improvements needed on the deliverable product
- Guided thermal and stress analysis teams in completing analysis reports
- Interfaced with a PWB vendor to procure and build a complex multi-layered backplane

►Led the design of an innovative subsea connector cleaning station, saving the company many thousands of dollars in cleaning contracts with an outside supplier

►Performed non-linear stress modeling of a fiberglass structure exposed to shipborne loading

Software Use

CAD
SolidWorks
NX
Pro/E
FEA
Femap/NASTRAN
ANSYS
Math/Programming
C++/Python
MATLAB
Mathcad

Technical Skills	Leadership Skills
Machine Design	Leading Teams
Structural Design	Writing Proposals
Stress Analysis	Investigating Failures
Thermal Analysis	Customer Interface
Reliability Analysis	Technical Writing
FEA	
Programming	
GD&T	

NAME
Michael Dumesh

EDUCATION
Case Western Reserve University
Cleveland, Ohio 1995-2000

DEGREE
Mechanical Engineering (BSME, MSME)

CONTINUING EDUCATION
Johns Hopkins University
Computer Science (MSCE, 2022)

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Hanover, MD

(3) Oceaneering
Staff Engineer

2019 ←→ 2020

▶ Leading system integration effort for an ROV deployment onto a customer vessel
▶ In the span of 6 months, completely redesigned and prototyped a device that measures the length of a fiberoptic tether remaining on an ROV spool

Laurel, MD

(4) Johns Hopkins Applied Physics Lab
Senior Professional Staff II

2009 ←→ 2019

▶ Served as a subject matter expert supporting US Navy's acquisition of various phased array systems
  • Performed engineering analysis (thermal, structural) to support conceptual design and systems engineering activities (LRDR, JSTARS, AOEW)
  • Participated in the source selection processes for AMDR, CEC, and EASR systems
  • Led gov't technical team in designing and manufacturing of SEWIP quad plate design
  • Supported ship integration activities for all major naval sensor systems under development

▶ Developed electro-mechanical packaging solutions with emphasis on structural design, power distribution, and thermal management
▶ Designed and implemented a low temperature test to qualify miniature UAV servo motors for high altitude flight
▶ Analyzed payload thermal management for the Wave Glider unmanned ocean robot
▶ Provided design and analysis expertise in FPGA packaging and cooling
▶ Used FEA and CAD software to perform design and stress/thermal analysis

Hunt Valley, MD

2008 ←→ 2009

(5) AAI Corporation, Textron Defense Systems
Mechanical Engineer III

▶ Performed design and engineering work on Shadow 200 Unmanned Aerial Vehicle (UAV) subsystems and components
▶ Redesigned landing gear assembly to minimize shock loads and increase reliability
▶ Used FEA software to perform stress analysis and design optimization
▶ Devised and executed testing and evaluation of prototype assemblies
▶ Analyzed and interpreted dynamic data collected from experimental vehicles

Linthicum, MD

(6) Northrop Grumman Corp., Electronic Systems
Senior Mechanical Engineer

2000 ←→ 2008

▶ Directed engineering team in design and structural/thermal analysis of radar systems
▶ Designed airborne radar chassis
▶ Reviewed and signed-off mechanical drawings and reports
▶ Utilized welded, brazed, riveted, and bolted aluminum/steel construction methods to design electronics chassis and test fixtures
▶ Worked with integrated product team leader (IPT) on schedule and budget planning
▶ Submitted 5 disclosures based on successful designs, was awarded 1 patent

Cleveland, OH

(7) NASA Glenn Research Center
Graduate Student (Thesis Work)

1999 ←→ 2000

▶ Designed and built a wide variety of structural members and accessories for an aerodynamics laboratory wind tunnel
▶ Arranged and continuously improved the configuration of laser diagnostics apparatus for measuring flow properties; analyzed and interpreted experimental data

NAME
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