Daniel Morton

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EDUCATION

Cornell University **Expected: May 2021**
B.S. Mechanical and Aerospace Engineering *Ithaca, NY*

- GPA: 4.13/4.30
- Activities: Orientation Leader, ASME, Reserve Tennis Team, Ski Club, Order of Omega
- Honors: 2019 McManus Design Award – "Optical Lace for Synthetic Afferent Neural Networks"
  2019 Goethe Prize for Writing

WORK EXPERIENCE

Organic Robotics Laboratory, Cornell University **Aug. 2018 – Present**
Undergraduate Researcher *Ithaca, NY*

- Lead designer on a 3D-printed soft robotic morphing wing using intelligent compliant lattice structures with embedded fiber optic sensing
- Optimized designs via topology optimization and FEA for strength, stability, and ease of manufacturing

NASA Marshall Space Flight Center **June 2020 – Aug. 2020**
Intern, Propulsion Research & Technology *Huntsville, AL / Remote*

- Conceptual modeling of a nuclear-thermal airbreathing vehicle launched from a magnetically-accelerated track
- Formed preliminary configurations around desired payloads and propulsive/electrical/aerodynamic constraints
- Programmed tools to create, analyze, and optimize 3D-printed heat exchangers

Boeing **May 2019 – Aug. 2019**
Intern, Product Development *Mukilteo, WA*

- Designed electronic attachment parts for rapid turnaround on the 2019 ecoDemonstrator flight-test airplane
- Led a team of six to design a new stowage structure integrated into the cabin floor, improving accessibility and safety for passengers. Pitched a full-scale mock-up to executives
- Filed for a patent on the above design

VOLUNTEER EXPERIENCE

Cornell Bio-Inspired Fluids Laboratory **May 2020 – Aug. 2020**
Designer – COVID-19 Air Filters *Ithaca, NY / Remote*

- Created bifurcating filtration structures, to be deployed in rapidly-produced 3D-printed face masks

Weill Cornell Medicine **Apr. 2020 – June 2020**
Designer – Artificial Heart Structures *New York, NY / Remote*

- Modeled structures which transition between the systolic/diastolic phases of the heart under hydraulic actuation

SKILLS & INTERESTS

- **Software:** CATIA v5, Autodesk Inventor, SolidWorks, Fusion 360, AutoCAD, COMSOL, nTopology
- **Coding:** MATLAB, C, C++, Arduino/microcontroller programming, LaTeX
- **Miscellaneous:** 3D-printing, product design, machine shop trained (mill and lathe)
- **Interests:** Watchmaking, skiing, golf, tennis, hiking, cooking/baking
- **Other:** Eagle Scout (2016)