

ALEXANDER GARNER

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EDUCATION & CURRENT COURSEWORK

The George Washington University, Washington, D.C.

B. S. Mechanical and Aerospace Engineering, GPA: **3.82/4.00**, Dean's List

Minor: Mathematics

August 2018 – Present

Graduating May 2022

Engineering Drawing (GD&T), Statics, Dynamics, Solids, Thermodynamics, Circuits, Engineering Computations (Python)

SKILLS & TECHNICAL PROFICIENCIES

Solidworks, AutoCAD, Solid Edge, MATLAB, Python

Considerable working knowledge of ANSYS, CATIA V5

EMPLOYMENT & RELEVANT EXPERIENCE

Society of Automotive Engineers: Baja Vehicle Design Competition

Brakes Subteam Co-Lead

September 2019 – Present

- Employed transient analysis, topology optimization, design validation systems in ANSYS.
- Designed and implemented aluminum brake rotors, achieved a 75% weight reduction over 2019 rotors.

Member

September 2018 – Present

- Managed team finances and task lists through G Suite, delivered sales pitch at 2019 competition.
- Assisted in manufacturing frame, suspension components, and cabin hardware.
- Achieved an overall top-20 finish at Spring 2019 Tennessee Tech international competition.

George Hacks Medical Solutions Hackathon

January 2019

- Utilized Solidworks, 3D printing in 24-hour prototyping of linear, angular actuator for wheelchair-mounted backpack.

Circuit Theory Bandpass Speaker Amplifier (Coursework)

December 2019

- Designed, fabricated (soldered, laser cut) operational amplifier bandpass filter, steel speaker housing.

Camp Mi-Te-Na (The Granite YMCA), NH

Summers 2018 – Present

Camp Counselor

- Waterfront lifeguard, swim instructor, in-cabin staff.
- Oversaw professional development of Junior Counselors, Counselors-In-Training by providing direct leadership coaching and written performance evaluations.

Second Round, GW New Venture Competition

March 2019

- Developed manufacturing plan, produced detailed business model canvas for smart-locking package box.

Speaker, University Writing Research Conference

March 2019

- Recognized for outstanding qualitative, ethnographic research on concussions, disability rhetoric and culture.

FIRST Robotics Competition

September 2018 – June 2018

Mechanical Subteam member

- Developed manufacturing skills for 5+ factory-level processes and machines

Volunteer

Multiple Organizations

- 200+ Community service hours for organizations including A Wider Circle, National Center for Children and Families, City of Gaithersburg, and Luke's Wings.