

Maegan Tucker

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EDUCATION

California Institute of Technology, PhD in Mechanical Engineering June 2023 (anticipated)

- Interim Advisor - Dr. Aaron Ames

Georgia Institute of Technology, BS in Mechanical Engineering May 2017

- **3.80/4.0** Overall GPA - **3.88/4.0** Major GPA
 - Member of the Tau Beta Pi Engineering Honors Society (Top 20% of Senior engineering students at Georgia Tech)
 - Georgia Tech Lorraine Study Abroad program, Spring of 2015
 - Georgia Tech Oxford Study Abroad program, Summer of 2013
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RESEARCH EXPERIENCE

Research Assistant for Dr. Aaron Young, Georgia Tech EPIC Lab September 2016 – September 2017

- Machined and assembled a transfemoral prosthetic device for the EPIC Lab
- Designed and implemented several modifications to the prosthetic device
- Designed and implemented a rig to experimentally test the stiffness of torsional springs using a universal testing machine.
- Assisted in implementing an impedance based controller on the transfemoral prosthetic device.

Research Assistant for Dr. Aaron Ames, (Georgia Tech) AMBER Lab August 2016 – December 2016

- Assisted in designing and machining parts for a new iteration of the transfemoral prosthetic device
- Designed and ran a human subject experiment to study the relationship between powered prosthetic walking and human metabolic expenditure.
- Obtained proper IRB approval for human subject testing
- Designed a new prosthetic foot to allow for multi-contact prosthetic walking.
- Won first place for overall presentation for the Georgia Tech Summer Research (SURE) Symposium

Research Assistant for Dr. Linsey, Georgia Tech IDREEM Lab September 2015 - December 2015

- Observed “Maker Spaces” to study the effect they have on students, specific to idea generation, through a longitudinal study. Created a “people counter” method to determine how many people used the invention studio using a camera.

Research Assistant for Dr. Pucha, professor of CAE and Design courses at Georgia Tech May 2014 - August 2014

- Created MATLAB programs to calculate the resistive and capacitive traits of randomly generated Carbon Nanotubes.
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WORK EXPERIENCE

NCR Corporation

Alpharetta, GA

Mechanical Engineering Co-op

September 2014 - May 2016

- Completed 3 full-time semester rotations working closely with a 5-person hardware engineering team.
- Worked in product design, prototype development/testing, and manufacturing of 3 new Point of Sale (POS) terminals.

Georgia Institute of Technology

Atlanta, GA

Shell Tutor for Mechanics of Deformable Bodies

September 2016 - December 2016

- Peer tutored other Georgia Tech undergraduates through funding provided by Shell.

Supervisor for the Campus Recreational Center

January 2014 - December 2014

- Supervised 3 Facilities desks and all other CRC divisions. Took control in all emergency situations.
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HONORS AND AWARDS

- **Theodore Y. Wu Graduate Fellowship:** Graduate Tuition and Stipend for the 2017 Academic year.
 - **NSF Graduate Research Fellowship Program:** Honorable Mention 2017
 - **President’s Undergraduate Research Salary Award (Spring 2017):** \$1500 student stipend towards conducting research with a Georgia Tech faculty member.
 - **First Place for overall presentation** among 40 students in Georgia Tech’s S.U.R.E. REU program (Summer 2016).
 - **Faculty honors (4.0 GPA):** Summer 2013, Spring 2015, Fall 2015.
 - **Dean’s List (3.0 GPA):** Fall 2012 and Spring 2013
 - **Society of Women Engineers Award** for excellence in math and science in 2012
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SKILLS

- Research: Department of the Navy Biomedical Human Research CITI Certified, Behavioral Research CITI Certified
- Programming Languages: MATLAB, C++, HTML, VPython/IDLE
- Software: SolidWorks, ROS, AutoCad, Inventor, ProEngineer (Creo), Microsoft Office, Endnote
- Machining: Certified to operate the Caltech Machine Shop (CNC Milling, Lathe, Waterjet, Vertical Band Saw, etc.)