

Carnegie Mellon University
College of Engineering

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Dear CMWA Scholarship Committee:

I am delighted to nominate Madelynne Long for the CMWA 2020 scholarship. Madelynne received her BS in Mechanical Engineering in December, 2019. She is an accomplished student academically who has demonstrated commitment to both service and leadership for women and all of her peers through her roles as Mentoring VP for Women in MechE and by providing student support in Mechanical Engineering classes.

In her role with Women in Meche, Madelynne was part of a core executive board who has maintained the Women in MechE group as an important student resource. This group was created by a faculty member and 2 advising staff in response to student feedback. The management of the organization was fully assumed by students in F18 when Madelynne joined, and she took the lead to build mentorship within the organization after returning from a co-op. This year, Madelynne has been instrumental in making sure the organization is able to sustain itself under new leadership that struggled a bit initially.

Madelynne has both officially and unofficially taken on the role of supporting students academically within her classes. For example, she worked as a grader for Professor Paul Steif who teaches Statics and Stress Analysis in Mechanical Engineering. He writes, "Madelynne is very bright and responsible. She served as a grader and I was very pleased with what she did. She was thorough and reliable." Professor Vickie Webster Wood teaches Gadgetry, a hands-on course that teaches arduinos amongst other things. She writes, "I had the pleasure of teaching...Madelynne ... last year in Gadgetry. She is an excellent student who was very actively engaged in lectures and outside of class..."

Finally, in addition to her professional work through internships and serving as the VP of Marketing for Carnegie Mellon Solar Racing, Madelynne has participated in faculty research as part of her exploration of robotics. Mechanical Engineering Professor Aaron Johnson writes, "For the last two semesters Madelynne has been working as a researcher in the RoboMechanics lab. Madelynne's project is to research different methods of digging, drilling, and scooping in order to autonomously collect soil samples for environmental monitoring. It is a very exciting project, with the potential to greatly increase the amount of information we have about contaminants in the environment as well as monitor changes

over time. It has also been a great project to have Madelynne on as it is related to some of her work at NASA on the Mars2020 sampling mechanism. She is very independent in her research, and we are gearing up to deploy the system in the field at the end of the spring semester. “

Madelynne will be starting coursework in the Master of Science degree program in Mechanical Engineering at Carnegie Mellon in the Fall 2020 semester after completing a co-op experience during the Spring of 2020. The College of Engineering is pleased to nominate her for this distinguished honor and we thank the CMWA for providing this excellent opportunity to recognize our students and their accomplishments.

Sincerely,

A handwritten signature in black ink, appearing to read "Annette M. Jacobson". The signature is fluid and cursive, with a long horizontal stroke at the end.

Annette M. Jacobson
Teaching Professor, Chemical Engineering
Director, Colloids, Polymers and Surfaces Program

