Robert Marcus

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Extracurricular Activities

Varsity Math Team, 12 (Captain), 11, 10, 9

Math is a philosophy for me. It's interacting with patterns, not numbers. Math team lets me practice exploring the meta-pattern of how my mathletes and I live our philosophy. Sharing these observations unites us, and makes math that much more exquisite and profound for everyone.

Varsity Squash, 12 (Captain), 11, 10, 9

In squash, you play alone, but you're part of a team. A few of us thought if our team had greater cohesion and focus, all would benefit. We decided to practice together year-round to affirm our idea, and inspire next year's team to join in our pursuit.

Varsity Cross Country, 11 (Captain), 10 (Captain), 9 (Captain)

Varsity Frisbee, 10 (Captain), 9 (Captain)

Freshman year, Ultimate Frisbee had the chance to earn official varsity recognition. As a leader, I organized the team and created a culture that maximizes each person's potential and helped create a successful and lasting legacy.

Long-term Independent Research Project

Development of a Powered Exoskeleton to Restore Mobility in Paraplegics

Winter 2013, I began an independent project that endeavored to design and manufacture a wearable, robotic assistance device that would restore mobility to paraplegics. This is called a powered exoskeleton, and mine is called Awstrol (an homage to Australopithecus, our oldest biped ancestor). The project is ongoing, and I plan to begin limited prototyping in winter 2016.

Volunteer Experience:

Two-Week Homestay/Community Service in Peruvian-Andes

I went to a small village, Piscacucho, in Peru with several teachers and students from my school. We stayed with local families as we rebuilt a part of the elementary school and led computer lessons for the children and parents. I went because I was curious what the adventure would hold. It is one of the most influential, profound, and spiritual experiences I've ever had.

Awards/Honors

Greens Farms Academy High Honors, 11, 10 Greens Farms Academy Honors, 10, 9 Sikorsky Aircraft Corporation Excellence in Science and Mathematics Award, 2016

Roger B True Science Research Award, 2016

AP Scholar Award, 2016

Interests

Baroque, pointillist, post-impressionist art

I'm currently designing a painting robot that uses an octopus-type arm to paint more like humans. My favorite piece currently is <u>Landscape with Stars</u> by Henri-Edmond Cross.

Trekking/Hiking and Ice/Rock Climbing

I'm passionate about climbing: ice, rock, and mountains. I love these activities because they test and redefine my mental and physical limits. My most recent extended expedition was a 30 day NOLS leadership course in June 2016, in the Norwegian Arctic Circle.

My first real solo travel was to Iceland after 10th grade for a nine day glacial trek, which I was evacuated from after six days because of inclement weather and trench foot. It was one of the greatest trips I've had the fortune to experience, and set in motion much of the interest in 'extreme' outdoor activities today.