Undergraduates Seeking Internships

Brent Mertz

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Summary

I am a biomedical engineering undergraduate interested in how innovative, affordable biotechnology can someday expand modern healthcare into medically underserved parts of the world, and how an understanding of research science can influence international healthcare policy. I have international experience, some laboratory experience, and I am seeking to deepen my understanding for the clinical biosciences and how laboratory research can propel our biomedical frontiers, particularly in fields like tissue engineering and nanoparticle drug delivery, into a more equitable future.

Education

Yale University — New Haven, Connecticut
BS in Biomedical Engineering, BA in African Studies — *Enrolled May 2019*

Shoreham-Wading River High School — Shoreham, New York
National AP Scholar with Distinction, National Merit Scholarship Semi-finalist, First in Class — *Graduated June 2015*

Positions and Experience

Yale Volunteers Around the World
Vice President of Education and Training — *April 2016 – Present*
Working with doctors around Cusco, Peru set up mobile clinics where preventative healthcare and prescription medications are made available to communities that are medically underserved. Specifics of position include training students in clinic work such as taking vitals, distributing pharmaceuticals, and explaining illnesses, as well as teaching basic Spanish and healthcare policy, in order prepare them to volunteer in clinics and hospitals when the group travels to Peru.

Yale Engineers Without Borders
Health Team Chairman — *January 2016 – January 2017*
Focused on consolidating public health efforts in northwest Cameroon and creating sanitation education lesson plans for students in rural schools. Assisted in construction for clean water infrastructure and carried out water quality testing and community health and disease surveys in Rohvitangitaa, Cameroon in May 2016.

Brookhaven National Laboratory — Upton, New York
Laboratory Assistant in Protein Crystallography — *June 2015 – July 2015*
Assisted researchers in the areas of biophysics and biomedical technology at Brookhaven National Lab who were performing x-ray crystallography on proteins using the National Synchrotron Light Source particle accelerator. Worked on accelerator beamline, assisted in preparation of protein crystals, and used modeling software to process structural data collected from hemoglobin.

Hobbies & Interests

My interests are at the intersection of biomedicine and international healthcare. I am fascinated by the potential that biomaterials and other new sciences offer us, but I'm also committed to finding ways that our technology can employed for universal betterment. I pursue opportunities that offer practical insights into the interplay between laboratory research and public implementation, with a specific focus on their futures for use in the developing world. I also enjoy being a communicator for others, and am confident in my ability to synthesize and express new ideas in clinical or casual settings. I volunteer as a tour guide in a campus historical art museum, which is a great way to practice researching and interfacing with people, and many of my extracurricular roles have me studying new technologies, medicines, or other ideas and expressing them to organize and coordinate a goal.

Professional Skills

MATLAB:	Intermediate
X-Ray Protein Crystallography:	Advanced
Particle Accelerator Beamline Operation:	Intermediate
Community Health Promotion and Education:	Advanced
Survey Design:	Advanced

Languages

Spanish: Fluent

References

Lawrence Staib — **Yale University**
Academic Advisor — Professor of Biomedical Engineering
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David Sacco — **Engineers Without Borders USA**
Engineering Mentor — Civil engineer in New Haven and mentor to the Yale EWB Chapter
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