SMITA BHATTACHARJEE

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EDUCATION

Massachusetts Institute of Technology (MIT) **Class of 2021**

- Mechanical Engineering Major with a concentration in Biological Engineering/ Biomedical Devices, Minor in Entrepreneurship and Innovation, Minor in International Development
- Coursework: Mechanics & Materials, Development Engineering, Controls/ Dynamics, Design & Manufacturing, Robotics

WORK EXPERIENCE

Facebook AR/VR- Technical Program Manager Intern (Hardware) **Summer 2020**

- Worked with cross functional hardware and software teams, along with a contract manufacturer overseas to facilitate a 500 unit build for the Facebook Portal product line

Applied Medical- Process Engineering Intern **Summer 2019**

- Optimized the manufacturing process of the Applied Medical GelPoint product line by designing, prototyping and testing fixtures for production. Analyzed existing manufacturing processes for improvement and efficiency

PRODUCT DESIGN EXPERIENCE

TILT – Founder **March 2018- Present**

- Designed, prototyped and built an affordable, lightweight assistive device for wheelchair users in developing countries lacking accessibility infrastructure that helps assistants pull wheelchairs up flights of stairs with ease
- Awarded funding: MIT Sandbox ($3500), Legatum Travel Grant ($3000) and PKG IDEAS competition ($10,000)

MIT D-Lab- Development Field Work- Botswana **January 2019**

- Completed agricultural developmental eng. projects in rural communities in Botswana with These Hands organization

RESEARCH EXPERIENCE

Synthetic Neurobiology Research- Media Lab **February 2018- January 2019**

- Mapped parts of the brain such as intracellular space using novel Expansion Microscopy techniques in Ed Boyden's lab

BioSystems and Micromechanics Research- SMART Research Center **June 2018-August 2018**

- Explored the usage of Atomic Force Microscopy to generate magnetic resonance spectroscopy signals to diagnose single cell diseases such as malaria.

Howard Hughes Medical Institute Research **June 2016-August 2016**

- Mutated the tGLuc sequence to reduce oxidation susceptibility and maintain the bioluminescent property as a biomarker.

Tissue Engineering Research **June 2013- June 2016**

- Co-Author, Published article in *"Journal of Long Term Effects of Medical Implants"* Volume 25-Issue 1-2
- Researched factors impacting growth and strength of BMMSC towards creating a Tissue Engineered Heart Valve (TEHV)

LEADERSHIP EXPERIENCE

MIT Hacking Medicine **January 2018-Present**

- Responsible for organizing and hosting large healthcare hackathons, holding design thinking workshops, and network gatherings to promote healthcare entrepreneurship for participants coming from all around the world

D-Lab Executive Director Search Committee Member/ Tour Guide **September 2019- Present**

- Give weekly tours for entrepreneurs interested in D-Lab and am part of a six person team to find a new executive director

Gordon Engineering Leadership (GEL) Program Student Leader **May 2020- Jan 2021**

- Lead GEL, a student run program, in restructuring its project management lessons to a virtual format for its 200 members

Sigma Kappa Executive Board- Panhellenic Delegate **September 2019- December 2020**

- Acted as a liaison between MIT Panhel and the SK Theta Lambda chapter to help plan initiatives and plan for COVID-19

Jugaad Innovations Lesson Planning **January 2018-January 2019**

- Create machine learning lesson modules for nonprofit makerspaces focused on promoting STEM education among students, that is currently being launched in Dubai Schools

Maseeh Hall Executive Council and Floor Representative **January 2018-December 2019**

- Organize dorm wide events through executive council and initiated events and retreats for my living community

SKILLS/ INTERESTS

Computer: Microsoft Office, Python, Solidworks, Fusion, MATLAB; **Machining:** Woodworking, Metalworking, 3D printing, laser cutting, Milling, Lathing; **Wet Lab Skills:** PCR, DNA extraction & sequencing, Site directed mutagenesis, Gel electrophoresis, Cell culture techniques, Atomic force microscopy, Expansion microscopy