

# NAME

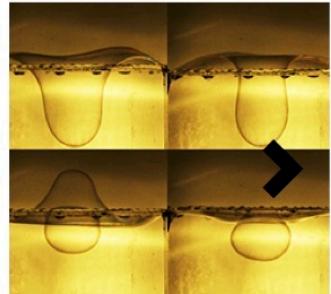
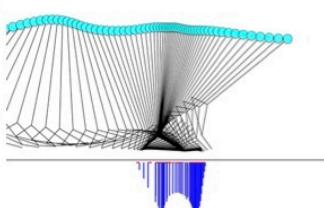
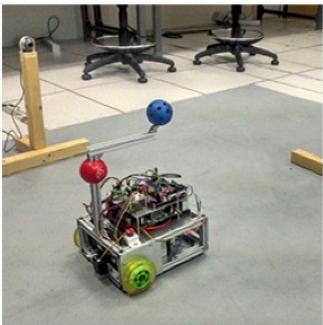
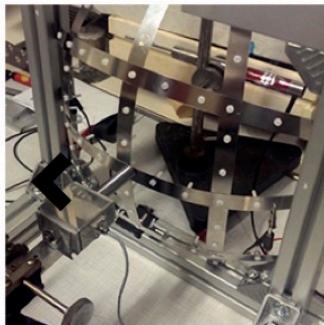
Home Projects Publications About Me



Hi, I am currently a PhD student in Mechanical Engineering at MIT (mit.edu). I work in the Global Engineering and Research Lab (GEAR Lab (<http://gear.mit.edu/>)) designing prosthetic feet for the developing world.

I received a M.Sc in Mechanical Engineering from MIT in 2017 and a M.Sc in Mechanical Engineering with a minor in Mathematics from Ecole Polytechnique (<http://www.polytechnique.edu/>) in June of 2015. I have a deep passion for mechanical engineering. I love taking gadgets apart to figure out how they work, how they can be improved, and using what I learn to create new technology and make a difference in the world.

This website contains projects that I have worked on as well as what I have learned from these projects and from mentoring others. See the about (./about.html) section for the most recent copy of my resume and my contact information



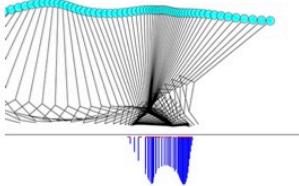
Name, brief intro, easy navigation, possibly some scrolling image links below.  
Simple design, nice use of white space.

Thanks to Victor Prost for the template design.

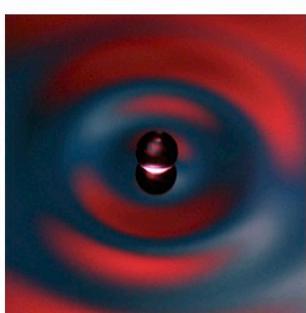
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RESEARCH

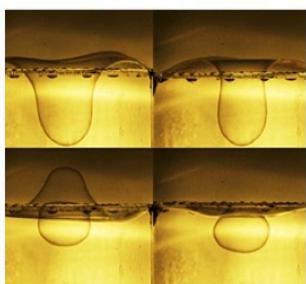
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**Master's Thesis: Prosthetic Foot Design***April 2016 - June 2017*

We work with Bhagwan Mahaveer Viklang Sahayata Samiti (BMVSS) to design an updated version of their Jaipur Foot, which is the most widely distributed prosthetic foot in the world. The original Jaipur Foot's success was due to its lifelike look, flexibility, and extreme durability. We aim to create a new version of the foot that is much lighter, can be mass-manufactured, meets international testing standards, is compatible with other prosthetic equipment, and matches the durability of the current foot. Using a novel prosthetic foot design objective called the Lower Leg Trajectory Error (LLTE) we are optimizing the compliance and geometry of our prosthetic foot to deliver lifelike gait mechanics using low-cost materials. See more ([\[link\]](#))

**Summer Research Project: Bouncing Droplets***April 2015 - July 2015*

We developed a method to visualize a hydrodynamic phenomenon. The reflection of an object can be distorted by undulations of the reflector, be it a funhouse mirror or a fluid surface. Here, we used this phenomenon to visualize micrometric surface waves generated as a millimetric droplet bounces on the surface of a vibrating fluid bath. This system, discovered a decade ago by Couder et al., is of current interest as a hydrodynamic quantum analog; specifically, the walking droplets exhibit several features reminiscent of quantum particles.

**Summer Research Project: Soap Films***April 2015 - July 2015*

I explored a strongly non-linear behavior of a soap film undergoing large-amplitude harmonic oscillations in the low frequency range. In such a film, liquid is re-distributed towards its center and the large-amplitude modes lead to the ejection of bubbles of the size of the main wave length from the film. I developed a numerical model and designed an experimental setup to characterize the phenomenon.

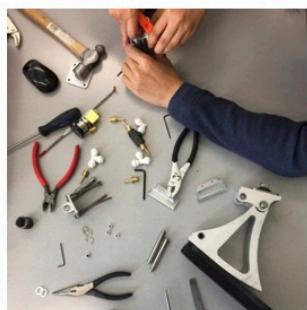
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Brief description, key results, outcomes, lessons. Additional links as available.  
Simple, clean. A Well-staged informative picture (you can vary the design, add more pictures, but it's important to use professional-looking graphics and pictures to show your effort and care for your work).

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## TEACHING

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### 2.760 Global Engineering

*September 2016 - December 2016*

As a mentor for 2.760, I supervised a team of graduate students working on a slope adaptable prosthetic foot in collaboration with the US Veterans Affairs. This class combines rigorous engineering theory and user-centered product design to create technologies for developing and emerging markets. It covers machine design theory to parametrically analyze technologies; bottom-up/top-down design processes; engagement of stakeholders in the design process; socioeconomic factors that affect adoption of products; and developing/emerging market dynamics and their effect on business and technology.



### 2.002 Solid Mechanics and Material

*February 2016 - May 2016*

As a TA for 2.002, I helped conducting lectures, recitations and laboratory hands on experiments. This class provided Mechanical engineering undergraduate students a fundamental understanding of the mechanical behavior of materials as well a quantitative knowledge of continuum mechanics of solids including elasticity, plasticity, fatigue, fracture and creep.



### GEPPM High School Tutoring

*September 2013 - June 2014*

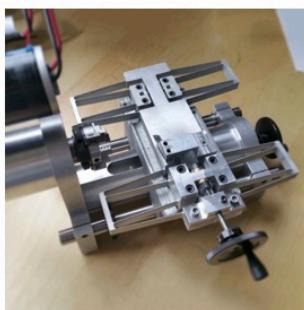
During my undergraduate senior year, I was volunteering as a tutor for a class of 15 underprivileged high school students. We were in charged of providing support in Mathematics, Physics, Geography and History. We organized challenges and activities to make their learning experience as rich and enjoyable as possible.

**Note the consistency between pages.**

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## CLASSES

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### 2.720: Elements of Machine Design

*February 2017 - June 2017*

2.720 (<https://ocw.mit.edu/courses/mechanical-engineering/2-72-elements-of-mechanical-design-spring-2009/index.htm>) is an advanced course on modeling, design, integration and best practices for use of machine elements such as bearings, bolts, belts, flexures and gears. Modeling and analysis of the elements is based upon rigorous application of physics, mathematics and core mechanical engineering principles (solid mechanics, fluid mechanics, manufacturing, estimation, simulation, etc.). In small groups of 7 people we designed and built a precision desktop lathe for cutting aluminum and steel. I was the FEA guru for my team, and primarily focused on flexure designs, and full lathe modeling .



### 2.810: Manufacturing

*September 2016 - December 2016*

2.810 (<http://web.mit.edu/2.810/www/index.html>) is an introduction to manufacturing processes and manufacturing systems including assembly, machining, injection molding, casting, thermoforming, and more. Emphasis on the physics and randomness and how they influence quality, rate, cost, and flexibility. Attention to the relationship between the process and the system, and the process and part design. In small groups we designed and fabricated a set of RC cars focusing on design for assembly and manufacturing. There was a single control box for the entire cars, that could be switch from one car to another in a split seconds. The final challenge was a racing tournament where we had to switch car along with the control box every lap.



### 2.744: Product Design

*April 2016 - June 2016*

2.744 (<http://web.mit.edu/2.744/www/index.html>) is a project-centered course focused on the design of products that are well-matched to user needs, with an emphasis on user experience, product form, human factors, and marketplace realities. The course focuses on providing opportunities to develop individual design skills while working in a small team and broadening your design perspective. Our team was working with 5 Wits (<http://5-wits.com/>) a live-action entertainment company to develop a special effect that will fit their next adventure. See more (<http://web.mit.edu/2.744/studentSubmissions/conceptImplementation/jinkies/home.html>)

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**PUBLICATIONS**

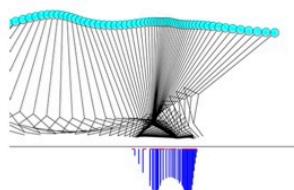
RESEARCH PAPERS

1.

2. **Add links if possible**

3.

HIGHLIGHTS



CONFERENCE PAPERS

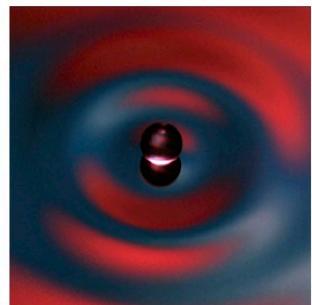
1.

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PATENT APPLICATION

1.



PRESS

1.

THESIS

1. **Masters Thesis**

2. **Undergrad Thesis**



## ABOUT ME

I am a graduate student in Mechanical Engineering at MIT. I received a M.Sc from MIT, a M.Sc. and B.Sc from Ecole Polytechnique in Paris. I am working on a low cost passive prosthetic foot. I am passionate about applying my designing and building eager to make a difference in the developing world. My work blends, design, experiments and optimization.

## REASEARCH INTEREST

- Machine/Product Design
- Manufacturing
- Structural Mechanics
- Optimization
- Fluid Mechanics
- Controls

## Contact Information

32 Vassar Street  
Cambridge MA, 02139 USA

Similar to a resume, but with some flexibility in length and layout. However, simplicity and clarity is still critical.

## BACKGROUND

- M.Sc in Mechanical Engineering, MIT, 2017
- M.Sc in Mechanical Engineering, Ecole Polytechnique, 2015
- B.S. in Mechanical Engineering, Ecole Polytechnique, 2014

## HONORS & AWARDS

- Runner Up Prize at the Mechanical Engineering Research Exhibition (2017)
- 2nd Prize in de Florez Competition for Graduate Design (2016)
- Milton Van Dyke Award - Gallery of Fluid Motion (2016)
- Tata Center for Technoloav Fellowship (2016)
- Jean Gaillard Mémorial Fellowship (2015)
- French Universti Boxing Champion (2014 & 2015)

## STUDENT GROUPS

- Social Chair of the Graduate Association of Mechanical Engineers at MIT (<http://game.mit.edu/>)
- Co-President of the MIT Francophone Club (<http://francophone.mit.edu/>)
- Project leader in the MIT Marine Robotic Team (MRT) ([http://web.mit.edu/mrt\\_mit/index.html](http://web.mit.edu/mrt_mit/index.html))
- Mentor for MIT MakerWorkshop (<http://makerworks.mit.edu/>), a student-run machine shop

## HOBBIES

Making things, Hydrofoil Boat Design, Travelling, Sailing, Soccer, Windsurfing, Squash