



**YiWen Deng ENG '18**

Mechanical Engineering  
with a concentration in  
manufacturing

My goal for the future  
is to help develop  
efficient techniques to  
build the next  
generation aircrafts for  
Boeing. This summer,  
my manufacturing  
module "Lego

Assembly" aims to teach high school students  
about the assembly line. My hope is that they  
will recognize how many products are made  
using this technique and why it is more efficient.

**Brandon Sookraj  
ENG '19**

Mechanical Engineering  
with Astronomy Minor  
Looking ahead, I plan  
to earn a master's  
degree in Aerospace  
Engineering in order  
to work for a space-  
faring company such  
as NASA or SpaceX.



Until then, I want to refine my engineering skills  
by getting practice in industry and research labs.  
This summer, I have designed two educational  
modules, *Fun in the Sun* and *Math Machine*.  
*Fun in the Sun* is a project where I teach  
students about solar energy by showing them  
how to create homemade solar cells; partially  
based off of the research being done by Dr.  
Sharifzadeh and her lab. *Math Machine* is a  
project where I teach students about compound  
events by relating the topic to the real life  
scenario of determining how likely a machine is  
to fail.



**Soniya Patel ENG  
'18**

Mechanical Engineering  
with a concentration in  
manufacturing.

I joined TISP because  
I want to inspire  
students younger than  
me to want to pursue

STEM fields. This summer I worked on a  
project inspired by Dr. Holt's research on wave  
focusing. My innovation in a box called "Wave  
Energy" will teach students the basics of waves  
through a design challenge based on wave  
energy generators. After graduation, I hope to  
work in industry and continue my passion for  
product design and development.



**Arley Trujillo ENG '18**

Computer Engineering

I joined TISP was because I'm passionate about  
impacting students and connecting them with  
opportunities they might not have access to due  
to their financial situation or environment. Last  
summer I was able to develop and teach my own  
curriculum in a classroom using UAVs and  
coding. This summer I worked as a project  
manager and curriculum developer for the new  
innovators as they created their workshops.

**Benjamin Newbery  
ENG '18**

Mechanical Engineering

I first got involved in  
engineering because  
of my love for math  
and science and my  
interest in teaching.  
My high school  
guidance counselor



told me that with engineering, I could create and  
innovate, but also teach people of different  
backgrounds about the wonders of engineering.  
TISP is a great way to fulfill all these goals,  
while giving back to the community. This  
summer, I am working to find a simple and  
informative way to teach students about  
important concepts of modern physics. For  
younger students, modern physics can be  
intimidating, so I think introducing it in a way  
that is easy to understand is very valuable As I  
move forward into my last year of school, I hope  
that I can keep inspiring and teaching students  
any way that I can.

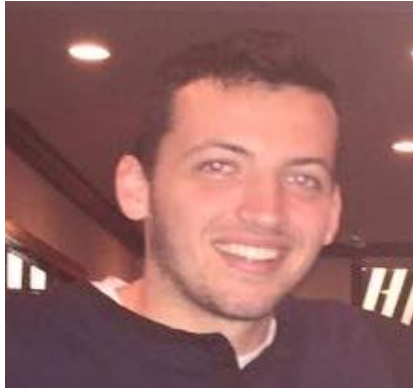


**Esther Huynh ENG  
'19**

Mechanical Engineering

This summer I  
developed an  
educational module  
inspired by Synthetic  
Biology and helped  
create a basic training  
manual for FIRST

Robotics mentors. My interests include  
exploring the application of technology to  
streamline medical care, the intersection of  
design and technology, and robots. I strongly  
believe that many societal issues can be solved  
through innovation and the advancement of  
technology.



**Michael Ward ENG '17**  
Mechanical Engineering

This summer I have started a one year Masters in teaching program at BU as part of their STEEP program. I started working for TISP for 3 years and have had the opportunity to create and teach lessons including our math and business version of the Marshmallow Challenge, and a NASA sponsored lesson about the James Webb Telescope. As part of the Marshmallow Challenge I created, I was included in a published piece that was accepted by the American Society for Engineering Education in 2015 that highlighted the math standards and rigor involved in the activity. This year I have taken on a leadership role as the Organizational and Development lead in helping to drive BU's Outreach and Diversity forward and create a student leadership platform. This work has included creating workshops to train undergrads to go into the classroom and lead middle and high school students through our Innovations in a Box. I have also helped to coordinate and run, UDesign, a STEM middle school summer camp that we offer in July.

#### **Alumni and Friends Supporters**

Mr. John Abele and the Argosy Foundation  
Mr. Jason Colacchio  
Professor Ted de Winter  
Ms. Vanessa Feliberti  
Mr. Raymond Han  
Mr. Dean Kamen  
Mr. Girish Navani  
Dr. Christopher Rothko & Ms. Lori Cohen  
Mr. John Tegan  
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Ingalls Foundation  
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Sanofi Genzyme  
Boston Museum of Science  
National Science Foundation  
The Kern Family Foundation  
Boston University Alumni  
Community Technology Services  
Accenture  
Ametek

#### **2017 Summer Research Collaborators**

Dr. Sharifzadeh  
Dr. Suzanne Chapin and the College of Education  
Dr. Glynn Holt  
Dr. Densmore, Marisa Mendes and the Synthetic Biology Team

#### **U-Design 2017 Teachers**

Yuyu Chen  
Paul Lansom-Laplume  
Joel Rubin

#### **U-Design 2017 Faculty Demos**

Dr. Holmes  
Dr. Roberto Tron  
Dr. Thomas Little  
Dr. Jason Ritt  
Dr. Glynn Holt

## **Boston University College of Engineering**

### **Technology Innovation Scholars Program**



## **Summer in STEM Reception July 26, 2017**

**Come join the Office of Outreach and Diversity for hands-on activities and student presentations**

Test drive our newly developed high school outreach activities:  
*Wave Energy• Physics Clinic• Math Machine• Fun in the Sun• Lego Assembly• Synthetic Superheroes*

Help us 'kick off' our new collaboration with The Calculus Project: **"Creating a Societal Engineer: Youth Design Challenge"** with special guest Dr. Adrian Mims