



JOHNS HOPKINS
UNIVERSITY



HEMI

HOPKINS EXTREME
MATERIALS INSTITUTE

Welcome to the
*Research and Engineering
Apprenticeship Program*

Introductions

Dr. Victor Nakano

**HEMI Executive Program Director
(serves as the REAP Director)**

- ❖ Graduated from West Point, Stanford and Purdue; civil engineering
- ❖ Served in the Army for 22 years and deployed to Iraq for GWOT
- ❖ Hometown is Kirkland, WA (Microsoft, Costco, Starbucks, Boeing)



Ms. Bess Bieluczyk

**HEMI Senior Admin Coordinator
(serves as the REAP Coordinator)**

- ❖ I have a cat, dog and a toddler.
- ❖ I'm a photographer in my spare time.
- ❖ Did not get my drivers license until I was 31.



Introductions

- ❖ Nahuel Albayrak
- ❖ Daria Holoman
- ❖ Jessica Shi
- ❖ Angela Torrejon

- ❖ Introductions
 - ❖ Hometown
 - ❖ High school
 - ❖ Interests/hobbies

Welcome REAP Students



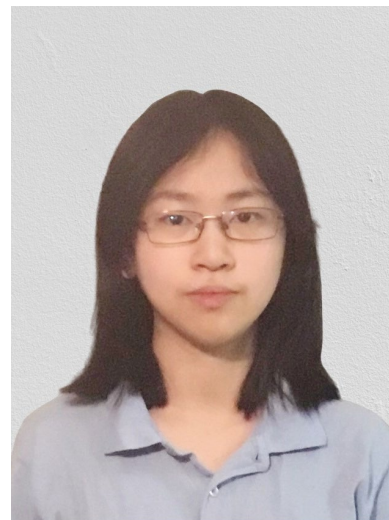
Nahuel Albayrak

Mentor: Chongpu Zhai
Faculty: Prof. Ryan Hurley



Daria Holoman

Mentor: Dylan Madisetti
Faculty: Prof. Jaafar El-Awady



Jessica Shi

Mentor: Marco Galvani
Faculty: Prof. Mark Robbins



Angela Torrejon

Mentor: Lucas Pressley
Faculty: Prof. Tyrel McQueen

SCHOOL OF
MEDICINE

SCHOOL OF
NURSING

PEABODY
INSTITUTE

SCHOOL OF
EDUCATION

CAREY BUSINESS
SCHOOL

BLOOMBERG
SCHOOL OF
PUBLIC HEALTH

ZANVYL KRIEGER
SCHOOL OF ARTS
AND SCIENCES

WHITING SCHOOL
OF ENGINEERING

APPLIED PHYSICS
LABORATORY

THE PAUL H.
NITZE SCHOOL OF
ADVANCED
INTERNATIONAL
STUDIES



HEMI

HOPKINS EXTREME
MATERIALS INSTITUTE



CMEDE

CENTER FOR
MATERIALS IN EXTREME
DYNAMIC ENVIRONMENTS



MSEE

MATERIALS SCIENCE IN
EXTREME ENVIRONMENTS
UNIVERSITY RESEARCH ALLIANCE

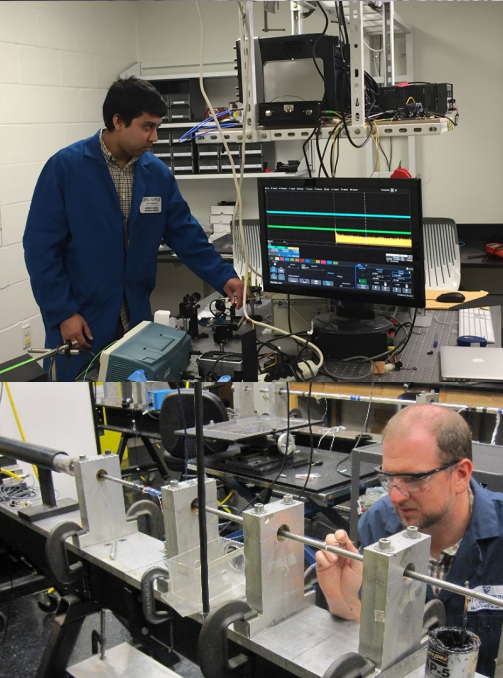
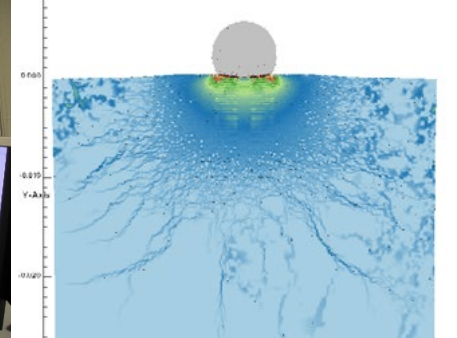
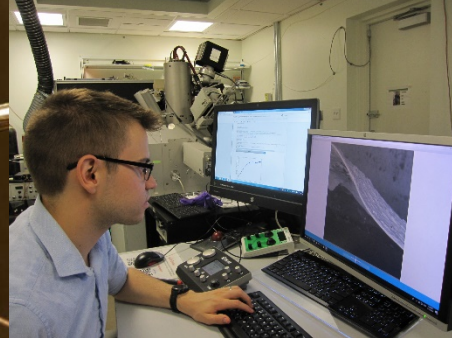
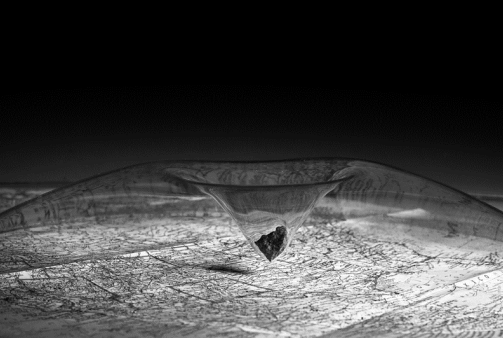
Interesting Facts about Johns Hopkins University

- 21,000 students (full and part time)
- 3600 full time faculty, 3100 part time faculty
- In FY2019, \$2.5B in federally sponsored research
- 36 Nobel Laureates
- Maryland's largest private employer (~47,000)
- Highly engaged in addressing COVID-19



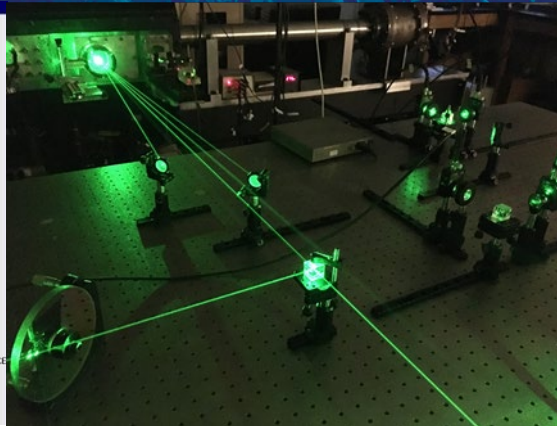
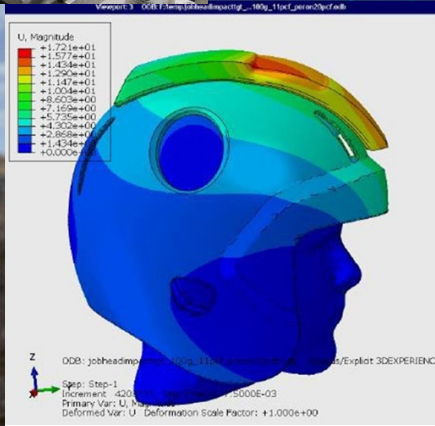
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HEMI video:
https://www.youtube.com/watch?time_continue=2&v=t9r85ZnTcCM





What is REAP?

- ❖ REAP = Research and Engineering Apprenticeship Program
- ❖ Sponsored by the Army Educational Outreach Program
- ❖ Provides selected high school students an apprenticeship opportunity at a university
- ❖ Apprenticeship focused in Science, Technology, Engineering or Math (STEM)
- ❖ No prerequisite classes, just an interest in STEM
- ❖ Hands-on experience working on real-life research

Due to COVID-19, remote apprenticeships

Transition to Bess

Administration

- JHED IDs, should have already received.
- Tracking the hours worked each week
 - On Monday mornings, each REAP student should send an email to Bess with the number of hours they worked the previous week.
- Stipend payment
 - Wage rate is \$12/hour
 - 6 weeks x 40 hours/week x \$12/hour = \$2,880 (max, amount)
 - Will be paid in two increments through direct deposit from RIT
 - ~July 15th, 50% which is equal to \$1,440
 - ~August, 50% which is equal to \$1,440

Key Events & Deliverables

- ❑ Tracking hours worked (weekly)
 - REAP students will submit number of hours worked to Bess each Monday morning for the previous week
- ❑ Midpoint seminar with Bess, date TBD.
- ❑ Faculty hosts and mentors will have other requirements
- ❑ Each REAP student will be asked to create a 3 ft x 4 ft electronic poster using MS powerpoint
- ❑ REAP final presentations, Monday, 8/3/20, 10:00am-11:30am
 - Hosted using Zoom meeting
 - REAP students will do a 15 min presentation followed by questions/answers
 - Family and friends can attend
 - VIPs both internal and external will be invited
- ❑ REAP students should consider competing in JSHS

Final Deliverables

- ❑ Potential phone interviews with AEOP REAP coordinators from RIT
- ❑ Final presentation (file)
- ❑ Poster (file)
- ❑ Abstract summary and images (files)
- ❑ AEOP student survey (on-line)
- ❑ AEOP mentor survey (on-line)

Welcome REAP Mentors

Welcome REAP Students



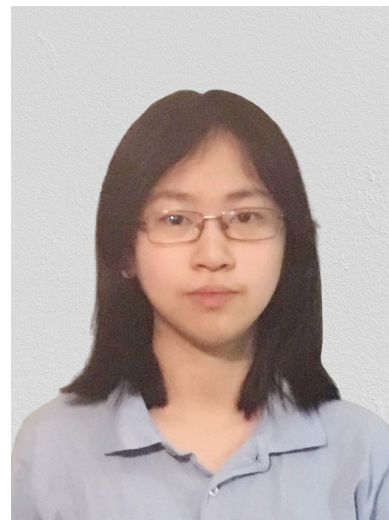
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