



# HEALTH HACKS

NOVEMBER 11-12, 2017



**VCU** School of Engineering

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# ABOUT

## What is a Medical Hackathon?

Medical innovators and students from multiple disciplines come together for one weekend to learn, design and create REAL solutions for unmet medical needs. HealthHacks is a student-run event that is similar in style to the traditional computer science-based hackathons, but with a focus on solving three major categories of medical problems:

Product  
Innovation

Improving  
Care

Patient  
Experience

A medical hackathon encourages students of any field — engineering, arts, business, pre-med, medicine, pharmacy and others — to identify real problems and collaborate on solutions that can be taken to the next level. With mentors and workshops throughout the day, multidisciplinary teams of hardworking students will build medical breakthroughs at HealthHacks!



401 W. MAIN ST.  
EAST HALL ATRIUM

# 2017 THEME

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## Pediatrics

Because children differ from adults in many ways — including size, development and body chemistry — there is a need for unique medical devices designed for pediatrics. Major medical device companies often overlook pediatrics as a viable market, so the development of pediatric devices lags behind that of adult devices. As a result, physicians often have to improvise solutions or adapt existing adult devices for their pediatric patients. This year, HealthHacks will focus on solving pediatric-related problems from various subspecialties.



## Hosted by the VCU Institute for Engineering and Medicine

The VCU Institute for Engineering and Medicine (IEM) fosters collaborative programs between VCU Engineering, Life Sciences and Medicine. Its commitment to advancing discovery through sharing knowledge across disciplines makes the IEM a leading research destination. Its flagship facility by Engineering West Hall and spaces in the Virginia Biotechnology Research Park provide researchers state-of-the-art instrumentation and a collaborative culture.

The IEM's mission is to provide a venue that promotes the advancement of research across the disciplines of engineering, physical sciences, medicine and the life sciences. It provides an environment that fosters sharing knowledge and resources to address the most challenging issues facing biomedical science and engineering.



# HEALTHHACKS 2016 BY THE NUMBERS

**160**   
STUDENT ATTENDEES

**33**   
GROUPS PRESENTED



**74** ENGINEERING STUDENTS



**6** MEDICAL STUDENTS



**30** COMPUTER SCIENCE STUDENTS



## AMPEASE

**PROJECT:** A COMPLETE OVERHAUL OF METHODS FOR ADMINISTERING MEDICATION THROUGH A SYRINGE.

**TEAM:** CHRISTOPHER CHEN, PRIYA SHANKAR, WENDY SUN, VICKI HUANG



## HEART IN HAND

**PROJECT:** SOFTWARE THAT TURNS CT IMAGES INTO 3D RENDERINGS, ALSO INCORPORATED INTO A VIRTUAL REALITY APP.

**TEAM:** ANISH DESAI, VIVEK PANDRANGI, UDEJILU UDEJI, JEFF ALVAREZ



## TREMORSENSE

**PROJECT:** ANALYSIS OF TREMORS USING A WEARABLE DEVICE FOR PARKINSON'S DISEASE.

**TEAM:** ANTON MARTIN, BIJAL RAJPUT, BILL ZHANG, JONATHAN ZHENG

# BY THE NUMBERS



## INSTITUTIONS REPRESENTED

VCU

CASE WESTERN

UNIVERSITY OF MARYLAND

UNIVERSITY OF RICHMOND

ELON

CAMPBELL

STEWART SCHOOL

UVA



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## INDUSTRY/SPONSOR MENTORS

ATLANTIC PEDIATRIC DEVICE CONSORTIUM

VIRGINIA BIOTECHNOLOGY RESEARCH PARK

HALOMED NORTH AMERICA

BUCHANAN & EDWARDS

GITHUB

# SPONSORSHIP

## Event Co-Host and Keynote Sponsor

*Includes all the benefits of the Silver, Bronze and Supporter packages, PLUS*

- Top T-shirt logo placement
- Option to give or sponsor the keynote speech
- A dinner named after your company

**GOLD**  
**\$5,000**

## Tutorial Sessions and Tech Talks Sponsor

*Includes all the benefits of the Bronze and Supporter packages, PLUS*

- Priority T-shirt logo placement
- Option to give or sponsor a tech talk
- A lunch named after your company

**SILVER**  
**\$2,500**

## Create a Challenge

*Includes all the benefits of the Supporter package, PLUS*

- Option to have a rep & booth at the event
- Access to participants' resumes
- A breakfast named after your company

**BRONZE**  
**\$1,250**

## Show Your Support with a Presence at the Event

- Logo on T-shirts
- Option to judge entries

**SUPPORTER**  
**\$500**



# JUDGING + SUPPORT

## Preliminary Judging Round

Roaming judges will each see a set number of projects science-fair style and give points based on judging criteria. The top third of projects will continue to the final judging round.

## Final Judging Round

Teams in the top third will present their projects and demonstrate their solutions in front of the full panel of judges and students in the auditorium.

## Why should you support this event?

- Special marketing and branding opportunity with a diverse and engaged audience (undergraduate/graduate students, industry, physicians, practitioners)
- Ability to provide a challenge/project for teams to tackle over 24 hours and provide ideas for future development, innovation and proof of concept
- Access and recruit valuable talent for your organization

## Criteria for Judging

Functionality

Creativity

Impact

Feasibility

Aesthetics

# SCHEDULE

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## SATURDAY NOV 11

- 9:00 a.m. Registration
- 9:45 a.m. Opening Ceremony and Problem Pitch
- 11:00 a.m. Brainstorming and Lunch
- 11:30 a.m. Solution Pitching and Team Formation
- 12:00 p.m. Meet with Mentor and Start Hacking
- 3:00 p.m. Guest Lecture
- 6:00 p.m. Dinner
- 6:15 p.m. Dinner Lecture
- 8:30 p.m. Student Workshop and Light Snack

## SUNDAY NOV 12

- 12:00 a.m. Midnight Snack
- 6:30 a.m. Coffee and Early Bird Breakfast
- 8:30 a.m. Breakfast
- 11:45 a.m. Submissions Due and Hacking Ends
- 12:00 p.m. Sponsor Fair and Networking Lunch
- 1:00 p.m. Preliminary Judging
- 2:15 p.m. Final Judging Round
- 3:30 p.m. Awards and Closing Ceremony

HealthHacks spans a 24-hour period of intense innovation and problem-solving. The event includes several food breaks that highlight some of Richmond's best cuisine and will feature games and new tech for participants to explore.

# THE TEAM + INFO



**Brandon Gaston**  
Medical Student Chair



**Joshnamaithili Seelam**  
Engineering Student Chair



**Philip O'Connor**  
Corporate Relations Officer

## Event Contact Info

**HealthHacks.vcu.edu** | **HealthHacks@vcu.edu**

### For Attendees and Mentors

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