

USC Viterbi

School of Engineering  
*Technology Innovation  
and Entrepreneurship*



## ***Office of Technology Innovation and Entrepreneurship***

Ellis Meng

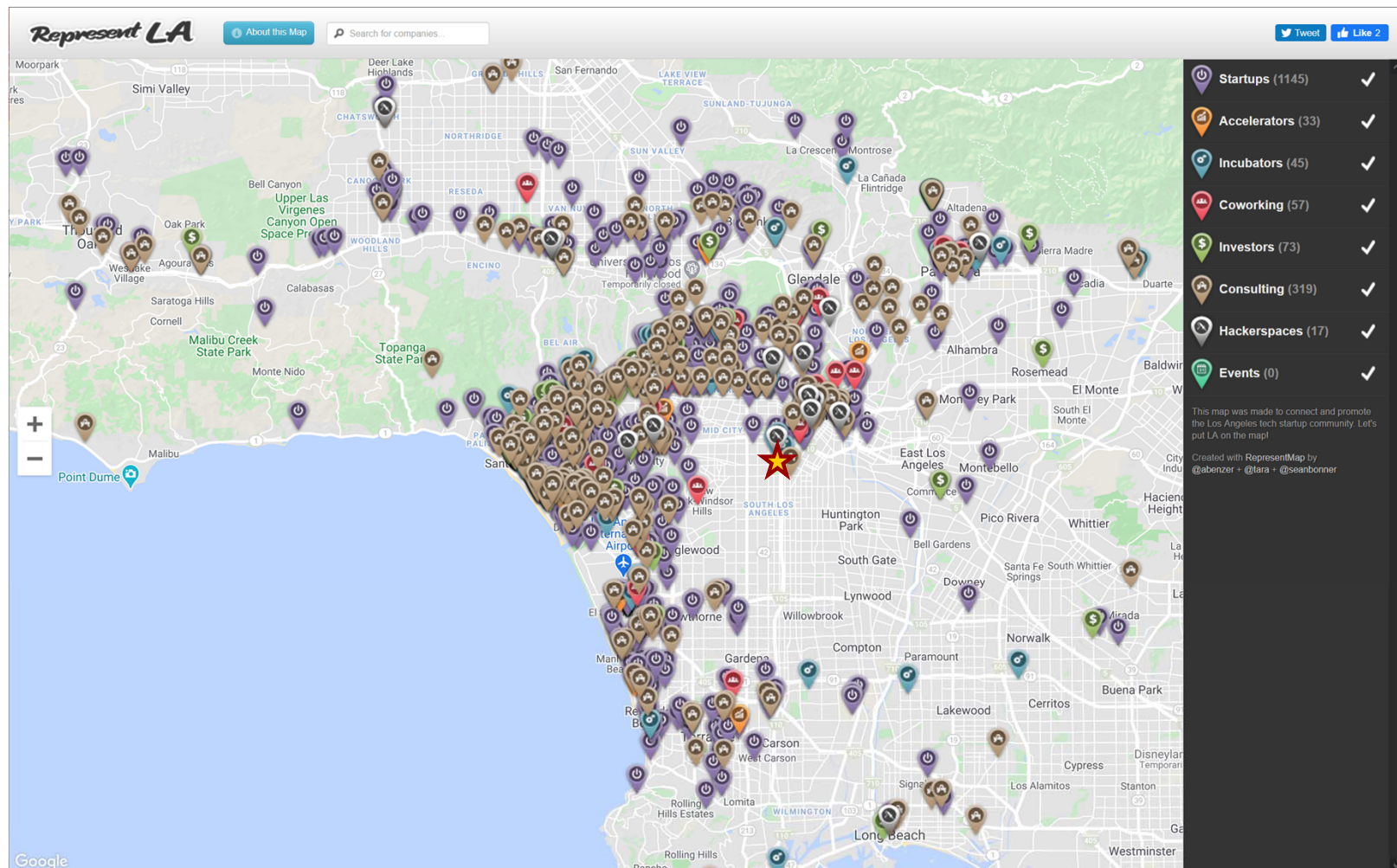
Vice Dean of Technology Innovation and Entrepreneurship  
Shelly and Ofer Nemirovsky Chair of Convergent Biosciences  
Professor Biomedical Engineering & Electrical and Computer Engineering  
Biomedical Microsystems Laboratory

- The Viterbi School Office of Technology Innovation and Entrepreneurship will:
  - Educate engineers on strategies to invent, develop, integrate, and sustain technologies that address significant needs
  - Launch ventures with meaningful social and economic impact based on USC faculty, staff, students, and technologies
  - Promote an ethical and inclusive technology innovation and entrepreneurship ecosystem

- The Viterbi School Office of Technology Innovation and Entrepreneurship will:
  - Educate engineers on strategies to invent, develop, integrate, and sustain technologies that address significant needs
  - Launch ventures with meaningful social and economic impact based on USC faculty, staff, students, and technologies
  - Promote an ethical and inclusive technology innovation and entrepreneurship ecosystem

- The Viterbi School Office of Technology Innovation and Entrepreneurship will:
  - Educate engineers on strategies to invent, develop, integrate, and sustain technologies that address significant needs
  - Launch ventures with meaningful social and economic impact based on USC faculty, staff, students, and technologies
  - Promote an ethical and inclusive technology innovation and entrepreneurship ecosystem
- We are separate from USC Stevens Center for Innovation which is our technology transfer office. For students and postdocs, see the following:  
<https://research.usc.edu/files/2018/01/Student-memo-1.8.17.pdf>

# The tech startup scene in Los Angeles



## Cool facts about the LA tech startup scene

- Los Angeles (LA) has the 3<sup>rd</sup> largest GDP in the world after Tokyo and New York
- LA is the 3<sup>rd</sup> largest tech ecosystem in the US
- LA is fastest growing tech ecosystem in the US
- LA companies raised \$6.4B in 2018
- LA ranks first in 3 industries: gaming, e-commerce, and online media
  - Emerging sectors include: VR/AR, e-sports, transportation, and aerospace
- LA is the manufacturing capital of the US
- LA graduates more engineers than any other US city
- SCilicon Beach is home to >500 technology companies

## Curriculum (to name a few classes)

- ENGR 100 Engineering Honors Colloquium
- ENGR 102 Freshman Academy
- ENGR 493 Disruptive Technologies with an Entrepreneurial Mindset (coming in 2022)
- ENGR 499 Technology Development and Commercialization
- CE 486 Innovation in Engineering Design for Global Crises
- ISE 585 Strategic Management of Technology
- CSCI 599 Innovation for Defense Applications
- ITP courses in Innovation: The Digital Entrepreneurship Minor
  - <https://itp.usc.edu/academics/innovation-digital-entrepreneur/>

- VSI<sup>2</sup> supports student exploration of technology innovation and entrepreneurship to create impact through:
  - Co-curricular competitions and experiences
  - Classes and class modules in VSoE
  - Office hours that provide personalized mentoring and support to individuals and teams
  - Opportunities to support TIE programming



# Atoms, Bits, and Cells (ABC) Undergraduate Prizes

- 3 prizes of \$1000 per team
  - Atoms: engineering hardware projects
  - Bits: digital projects such as mobile and web apps including AI, ML applications
  - Cells: biomedical or bioengineering projects
- Info Session: end Oct/early Nov
- Applications due in January
- Participate in VSI<sup>2</sup> workshops
- <http://viterbiinnovation.usc.edu/abc/>

# Hacking for Defense (H4D)

- CSCI 599 Innovation for Defense Applications (Spring 22)
- Taught by combination of faculty (Prof. Neuman) and military experts
  - Learn about real national security issues
  - You do not need to be a US citizen
  - We sent a team to the Pentagon!
  - Includes networking with military leadership
- <http://viterbiinnovation.usc.edu/h4d/>



# Maseeh Entrepreneurship Prize Competition (MEPC)

- Flagship competition
- \$50,000 grand prize
- Participate in VSI<sup>2</sup> workshops
- Free legal services to top teams
- Stay tuned and join us!
  - Info Session General: 9/10, 12:30p
  - Applications Open: 9/10
  - Applications Due: 10/24
  - Kick-off + Orientation: 11/18, 4p
  - First Workshop: 12/2, 12p
  - Semi-finals: 4/7, 4p
  - Finals: April



**To learn more and stay tuned:**

**<https://viterbiinnovation.usc.edu/mepc/>**

# Min Family Challenge (MFC)

- Focus: support student use of engineering and technology to develop sustainable and effective solutions for global problems, positively affecting the greater society
- UN SDGs as a framework
- \$50,000 grand prize
- Free legal services to top teams

- Info Session: 9/8, 2p
- Applications due: 11/1, 11:59p
- Participate in VSI<sup>2</sup> workshops
- Present to investors at our finals event
- <http://viterbiinnovation.usc.edu/mfc/>

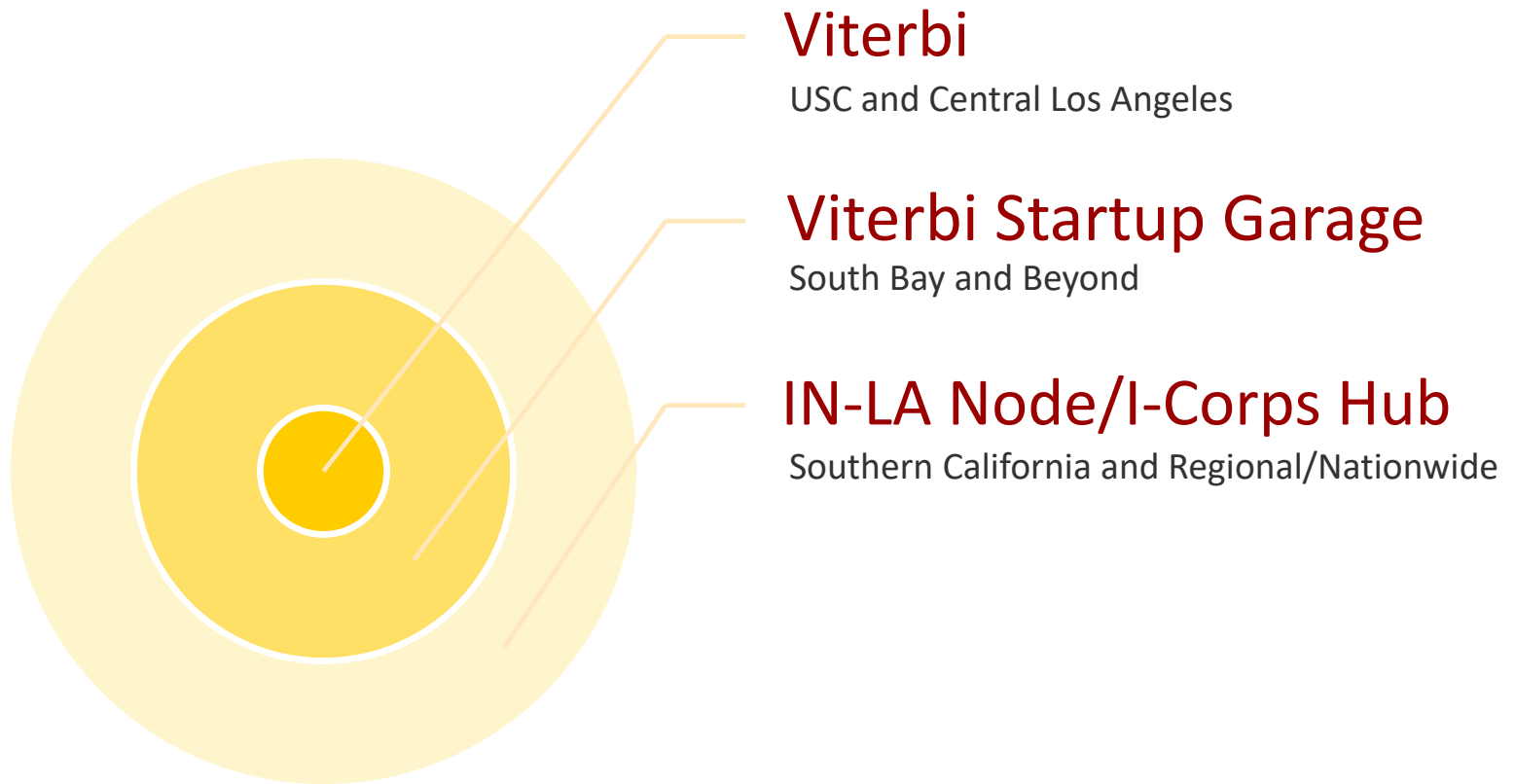


## Additional Programs

- Viterbi Venture Fund – funding to help teams launch
- There are many other programs on campus in other schools and programs!
- Note: Check out the new Baum Family Maker Space!



# 10,000 foot view of OTIE

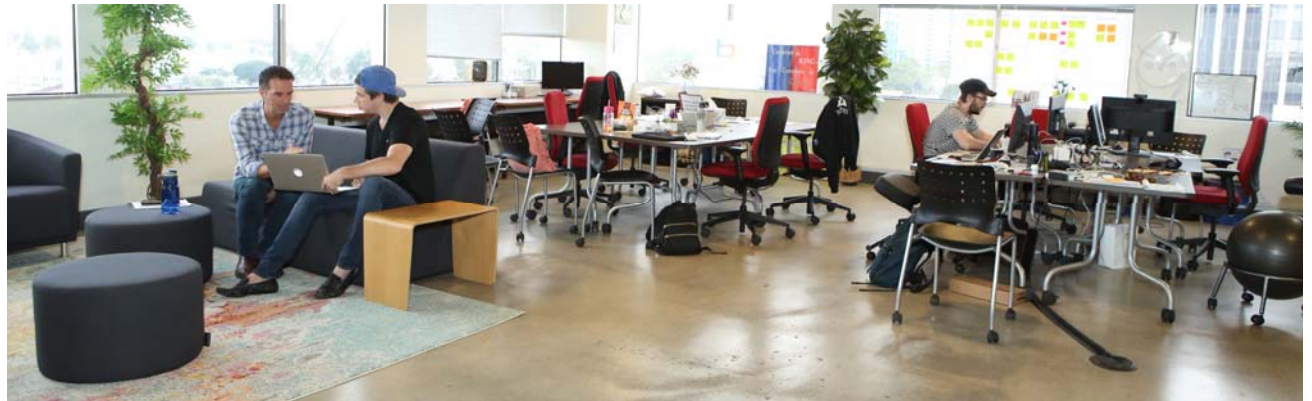




# Viterbi Startup Garage



- Year-round incubator for early-stage technology startups located in Marina Del Rey
- Home for investor screenings
- Academic year: Home of multiple events
- Summer: Home of Summer Smasher program – immersive student internship experience
- <http://viterbiinnovation.usc.edu/vsg/>



- Objective: Broaden student experience beyond traditional engineering curriculum
- VSoE interns join startup companies in VSG
- Guided sessions to help maximize your experience
- Info session in late Feb
- Applications ~March
- <http://viterbiinnovation.usc.edu/summer-smasher/>



## Innovation Corps (“I-Corps”)

- Support to commercialize technologies developed in universities
- \$50,000 grant from the National Science Foundation
- Must have intellectual property in deep tech (no apps)
- ZAP! Training can be used to qualify for the national program
- ZAP! also enables you to present at annual Technology Scouting Workshop (speakers from Amazon, Boeing, Google, Dow, NASA, Virgin Orbit, J&J JLABS, and more!)
- <http://lanode.org/zap/>



**USC**Viterbi  
School of Engineering

630+ teams and 20 members!

**\$1.4B+ raised**

**UCLA**

 **USC** University of  
Southern California

**Caltech**



University of Colorado  
Boulder

**UC RIVERSIDE**  
UNIVERSITY OF CALIFORNIA

**UCSB**

**UCI** University of  
California, Irvine

**CSUN** | CALIFORNIA  
STATE UNIVERSITY  
NORTHRIE

**ASU**  
ARIZONA STATE UNIVERSITY

 **N** University of Nevada, Reno

**UC San Diego**

**Cal  
State  
LA**

**W**  
UNIVERSITY of  
WASHINGTON

 **THE UNIVERSITY  
OF ARIZONA**

 **LACLEANTECH  
INCUBATOR**  
at La Kretz Innovation Campus

 **SUNY** The State University  
of New York

**NEW RELATIONSHIPS:**

 **THE  
UNIVERSITY  
OF UTAH**

 **THE UNIVERSITY OF  
NEW MEXICO**

 **COLORADO SCHOOL OF  
MINES**

**UNLV**  
UNIVERSITY OF NEVADA LAS VEGAS

- Not sure where to go?
- Not sure how to start?
- Join us for office hours with mentors and investors
- Email Prof. Trina Gregory – [trinagre@usc.edu](mailto:trinagre@usc.edu)

- We need help to support our programs during the year and in the summer
  - ENGR 102 engineering entrepreneurship instructors
  - Competitions
  - Summer Smasher TA
  - High school program TA and facilitators
- Look out for our postings!

- Many activities to promote innovation and entrepreneurship in Viterbi
- Seeking input on what other programming would be helpful
- Take advantage of all the other programs across the campus too!

## Atoms Bits and Cells Competition



Trina Gregory



## Engineering Honors Program, Student Programs, and Courses



David Gerber



Trina Gregory



Denise McKenzie



Cliff Neuman



Farzin Samadani

## Min Family Challenge



David Gerber



Trina Gregory



Susan Angus



Commission on Voluntary  
Service & Action

## Maseeh Entrepreneurship Prize Competition



Denise McKenzie



Rob Schoeben



Hovig Tchalian



**Lloyd Greif Center**  
for Entrepreneurial Studies

**USC Marshall**  
School of Business

## Viterbi Startup Garage



Dave Eastman



Arcelia Navarro

## Viterbi Venture Fund



Dave Eastman

## NSF I-Corps



Dave Eastman



Precious McClendon



Arcelia Navarro



Jason Ordonez

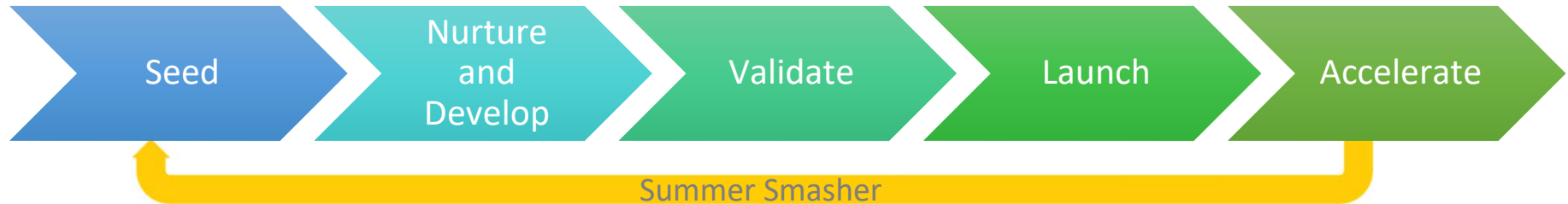


## Sign up for our mailing list

- Sign up here:  
<https://tinyurl.com/ViterbiTIEinfo>
- Or use the QR code →
- Get updates on events and competitions
- Please be on the lookout for future Tech Startup Networking events brought to you by USC Viterbi TIE Office



# Questions? Stay and Network!



- VSEE: entrepreneurial mindset in Freshman Academy
- ENGR 100, 493, 499, CE 486, ISE 585, H4D, and other courses
- Summer Smasher: immersive experience with start-ups
- TIE Summer Program

- Competitions (incl. MEPC, MFC, ABC Prize, NAE)
- External pitch competitions
- Engineering Honors Program – Innovation Track
- Office Hours

<http://viterbiinnovation.usc.edu>

<http://lanode.org>

[viterbi-innovation@usc.edu](mailto:viterbi-innovation@usc.edu)

***Sign up for our mailing list:*** <https://tinyurl.com/ViterbiTIEinfo>

- NSF I-Corps Programing (incl. ZAP, BOOM, LAUNCH, BLITZ, National I-Corps)
- Summer Innovation Fellowship

- Synchrotron, VSG accelerator program
- Technology Scouting Workshop
- Faculty seminars

- Full-time residency at the Viterbi Start-up Garage
- Viterbi Venture Fund

