



Berkeley
UNIVERSITY OF CALIFORNIA



Where New Thinking Thrives

Integrated into the innovative San Francisco Bay Area, Haas excels in producing fresh ideas. Meet our people who lead through innovation. [>Read More](#)



MORE INNOVATIVE THAN ENTREPRENEURIAL

- Since its founding in 1868 and subsequent emergence as the flagship campus of the University of California system, UC Berkeley has been at the forefront of revolutionary discoveries and inventions with profound social and human impact.
- Until relatively recently, however, the university did not seek to systematically advance entrepreneurship or encourage and assist its faculty, students, fellows, and postdocs to commercialize their discoveries and inventions.
- Indeed, for most of the university's history, its most pre-eminent scholars tended to view the pursuit of commercial enterprise as crass and unbecoming.



WORLD CHANGING INNOVATIONS FROM BERKELEY

A partial list of innovations that have emerged from UC Berkeley include:

- Vitamin E

Herbert M. Evans and
Dr. Katharine S. Bishop



- Statistical Theory
Jerzy Neyman

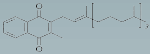


- Nutrition Science
M.E. Jaffe



WORLD CHANGING INNOVATIONS

- Vitamin K
Herman J. Almquist



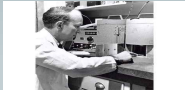
- Carbon 14 and Photosynthesis
Melvin Calvin



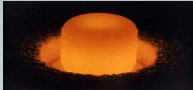
- Bovine Growth Hormone
Herbert Evans and Choh Hao Li



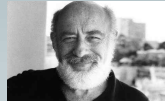
- Nuclear Medicine
John Lawrence



- Plutonium
Glenn T. Seaborg



- Lipoproteins and Heart Disease
John Gofman



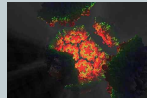
- Influenza Virus Vaccine
Wendell M. Stanley



- Atomic Bomb
J. Robert Oppenheimer

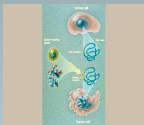


- Polio Virus
UC Berkeley Virus Laboratory



WORLD CHANGING INNOVATIONS

- Oncogene activation
Peter Duesberg



- Computer-aided Circuit Design
Donald O. Pederson



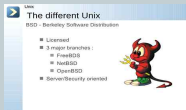
- Microscopic Motors
Richard Muller



- Birth of Biotech
The first biotechnology company, Cetus, is founded by Donald Glaser, winner of the 1960 Nobel Prize in Physics



- Identifying Carcinogens
Berkeley UNIX and the birth of open-source software
Kenneth Thompson, Bill Joy, et al



- Genes and breast Cancer
Mary-Claire King



WORLD CHANGING INNOVATIONS

- Immunotherapy
James Allison



- Robotic Legs
Homayoon Katuzian



- Biofuels
\$500 million effort to develop biofuels



- Treatment for Malaria
Jay Keasling



- Visual Brain WaveS
Jack Gallant



- CRISPR Gene Editing / mRNA Vaccines
Jennifer Doudna



For more innovations and details see: <https://www.berkeley.edu/about/history-discoveries>

ACCUMULATION OF ACCOLADES

- In part as a result, Berkeley became and remains the best public university in the world.
- Throughout the Cold War, Berkeley had more Noble Laureates than the Soviet Union.
- At 110, Berkeley is currently second only to Harvard in terms of Nobel Prize Winners.
- Berkeley also boasts:
 - 14 Fields Medalists
 - 25 Turing Award winners
 - 103 MacArthur "Genius Grant" recipients
 - 28 Wolf Prize winners
 - 30 Pulitzer Prize winner



JFK at UC Berkeley, March 23, 1962

CONSISTENTLY AT THE TOP

#1	Harvard University  United States Cambridge, MA	100 Global Score
#2	Massachusetts Institute of Technology  United States Cambridge, MA	97.9 Global Score
#3	Stanford University  United States Stanford, CA	92.9 Global Score
#4	University of California--Berkeley  United States Berkeley, CA	92.8 Global Score
#5	California Institute of Technology  United States Pasadena, CA	89.3 Global Score
#6	University of Oxford  United Kingdom Oxford	88.1 Global Score

Best Global Universities Rankings



These institutions from the U.S. and around 60 other countries have been ranked based on 12 indicators that measure their academic research performance and their global and regional reputations. Students can use these rankings to explore the higher education options that exist beyond their own countries' borders and to compare key aspects of schools' research missions. These are the world's top 1,000 universities.

[See the methodology »](#)



Clarivate Analytics | A primary research & analysis provider of reputation rankings

- UC Berkeley's world-class faculty and researchers are changing the way we understand and interact with the world.
- Consistently ranked among the five top research universities in the world, UC Berkeley is highly rated for the quality and breadth of its research programs and the distinction of its faculty.

SUPPLYING TALENT AND PIONEERING LEADERSHIP

- Even when the university was not emphasizing the promotion of entrepreneurship and commercialization, its affiliates and graduates managed to establish a long legacy of innovations and leaders that have created groundbreaking products, revolutionary companies, and entirely new industries.
- Since the emergence of Silicon Valley as the epicenter of technology entrepreneurship and innovation, Berkeley has supplied the largest number of talents and CEO's to the Valley.
 - *Business Insider*: "Berkeley beat out Stanford University (No. 2), Carnegie Mellon (No. 3), and the University of Texas at Austin (No. 5) in becoming the university that sends the most graduates on to careers at Silicon Valley's top 25 tech companies by revenue." May 2, 2017.



COMPANIES FOUNDED BY BERKELEY ALUMNI

	Company	Fortune 1000(2017) ^[14]	Revenue in US\$ millions(2016) ^[14]	Type	Category	Year founded	Comments
1	Apple	3	215,639	Public	Technology	1976	
2	Intel	47	59,387	Public	Semiconductor	1968	
3	American International Group (AIG)	55	52,367	Public	Finance	1919	
4	Morgan Stanley*	76	37,949	Public	Finance	1924 (Dean Witter & Co.)	
5	Gap Inc.	178	15,516	Public	Clothing	1969	
6	eBay	310	8,979	Public	Technology	1995	
7	Tesla	383	7,000	Public	Automotive	2003	
8	Activision Blizzard*	406	6,608	Public	Video game	1979 (Activision)	
9	NetApp	468	5,546	Public	Technology	1992	
10	Bio-Rad Laboratories	917	2,068	Public	Medical	1952	
11	Autodesk	928	2,031	Public	Software	1982	
12	Cadence Design Systems*	992	1,816	Public	Software	1983 (Solomon Design Automation)	

	Company	Fortune Global 500			Fortune 1000			Type	Category	Year founded
1	Sun Microsystems	—	—	—	204 (2010)	187 (2009)	184 (2008) ^[15]	Acquired	Technology	1982
2	SanDisk	—	—	—	464 (2016)	408 (2015)	422 (2014) ^[16]	Acquired	Technology	1988
3	Bay Networks*	—	—	—	573 (1999)	603 (1998)	600 (1997) ^[17]	Defunct	Network hardware	1985 (SynOptics)
4	UTStarcom*	—	—	—	782 (2008)	613 (2006)	629 (2005) ^[18]	Public	Semiconductor	1991 (Unitech)
5	LSI Corporation	—	—	—	870 (2014)	808 (2013)	852 (2012) ^[19]	Acquired	Semiconductor	1981
6	Fairchild Semiconductor	—	—	—	984 (2008)	963 (2007)	886 (2005) ^[20]	Acquired	Semiconductor	1957



Big Data Analytics in Distributed Network Monitoring ▾

Real-Time Visibility into High-Speed Network Performance ▾

Packet Capture in High-Speed Data Center Networks ▾

7 Key R Distrib

10 top colleges for tech CEOs

Surprise: The No. 1 pick isn't Harvard, Stanford or MIT

By Carolyn Duffy Marsan, June 27, 2012

10 top colleges for tech CEOs

Surprise: The No. 1 pick isn't Harvard, Stanford or MIT

Slideshow

 Add a comment

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Next ▶

First

Berkeley



No. 1: Berkeley bests Stanford

Despite its laid-back, hippie image, the University of California at Berkeley is the No. 1 university for producing U.S. tech industry CEOs. Among the 81 degrees obtained by top tech CEOs, Berkeley represents five of them -- more than any other school on our list. Graduates include [Paul Jacobs](#), CEO and chairman of Qualcomm, who holds three degrees from Berkeley: bachelor's, master's and doctorate degrees in electrical engineering. Another graduate of Berkeley is [Paul Otellini](#), CEO and president of Intel, who holds an MBA from the Haas School of Business, as does [Shantanu Narayan](#), CEO and president of Adobe.

NOTABLE BERKELEY FOUNDERS AND CEO'S



Steve Wozniak, Cofounder,
Apple



Gordon Moore, Co-founder,
Intel and Fairchild
Semiconductor



Bill Joy, Cofounder, Sun
Microsystems



Eric Schmidt, former
CEO and Executive
Chairman, Google



Pierre Omidyar,
Founder, Ebay



Mark Tarpenning, Co-
founder, Tesla, Inc

CATCH-UP AND THE MERGER OF ENTREPRENEURSHIP AND INNOVATION

Innovation & Entrepreneurship at UC Berkeley

Resources for inventors, entrepreneurs, and startups



For more information visit begin.berkeley.edu

Berkeley
UNIVERSITY OF CALIFORNIA



Academic Programs

AMENA Center for Entrepreneurship & Development
Berkeley Biology+Business
Berkeley-Haas Entrepreneurship



Startup Support

Berkeley Post-Doc Entrepreneurship Program (BPEP)
Blockchain Xcelerator
Free Ventures



Product/Market Fit Support

Big Ideas@Berkeley
Cal Hacks
Cleantech to Market

Academic Programs

AMENA Center for Entrepreneurship & Development
Berkeley Biology+Business
Berkeley-Haas Entrepreneurship Program
Berkeley Master of Design
BIDS Berkeley Institute of Data Science
Synthetic Biology Institute
Blum Center Social Innovator OnRamp
Fung Institute for Engineering Leadership
Fung Fellowship for Wellness and Technology Innovations
Garwood Center for Corporate Innovation
Management, Entrepreneurship & Technology Program
Sutardja Center for Entrepreneurship & Technology
Learn2Launch

New Product R&D Support

Bakar Fellows
Bay Area i-Corps
Berkeley Center for Green Chemistry
Berkeley Sensor and Actuator Center (BSAC)
Biomolecular Nanotechnology Center
CITRIS Invention Lab
Cleantech to Market
Department of Chemical and Biomolecular Engineering Product Development Program (PDP)
Innovate Berkeley
Jacobs Institute for Design Innovation
ME Student Machine Shop
Marvell Nanolab
Synthetic Biology Institute

Startup Support

Berkeley Post-Doc Entrepreneurship Program (BPEP)
Blockchain Xcelerator
Free Ventures
Berkeley Ventures
Berkeley Startup Cluster
Cal Hacks Fellowship
CITRIS Foundry
Cyclotron Road
California Institute for Quantitative Biosciences (QB3)
EBiz
LAUNCH
SkyDeck
StEP
The House Residency

Funding Support

Signatures Innovation Fellows
Berkeley Angel Network
Berkeley-Haas Entrepreneurship Startup Seed Fund
Berkeley SkyDeck Fund
Dorm Room Fund
Haas Impact Fund
House Fund
Ironfire Ventures
Osage University Partners
SBIR/STTR grants
Industry Alliances Office, IPIRA
Berkeley Catalyst Fund
Blue Bear Ventures
Bee Partners
Contrary Capital

Product/Market Fit Support

Big Ideas@Berkeley
Cal Hacks
Cleantech to Market
NSF Innovation Corps
Venture Capital Investment Competition
Collider Cup
Nuclear Innovation Bootcamp

Legal Support

Business Community Law Clinic
Office of Technology Licensing, IPIRA
Startup @ Berkeley Law

Recruiting Support

BearX
Career Center
Handshake
UCB Startup Fair

Entrepreneurship and Intellectual Property Support

Berkeley Entrepreneurs Association
BEGIN
Berkeley Energy & Resources Collaborative (BERC)
Intellectual Property and Industry Research Alliances (IPIRA)
Sigma Eta Pi
Venture Strategy Solutions
Entrepreneurs@Berkeley

APPOINTMENT OF A CHIEF INNOVATION AND ENTREPRENEURSHIP OFFICER



- To coordinate and activate the full potential of Berkeley's innovation and entrepreneurship landscape, Berkeley appointed the former Dean of the Haas School of Business Rich Lyons as the university's first -ever Chief Innovation and Entrepreneurship Officer (CIEO) effective January 1, 2020.
- As the CIEO, Professor Lyons will work with campus partners to further develop and communicate Berkeley's rich portfolio of innovation and entrepreneurship activities to the benefit of students, faculty, staff, and startups.
- He will also be responsible for developing strategies to raise the visibility of these activities internally and externally and to create high-value partnerships with stakeholders.
- Lyons: 'If together we can improve the transformation of Berkeley's prodigious intellectual product, across the whole campus, into greater societal benefit, then we will have achieved a great deal'.

SELECTED BERKELEY ENTREPRENEURSHIP PROMOTION PROGRAMS



Office of Intellectual
Property



Berkeley-Haas
SkyDeck



Entrepreneurship
Program



Fung Institute



QB3 for Startups



CITRIS Foundry



Cleantech to Market



Biomanufacturing to
Market



BPEP



Berkeley Innovators



Big Ideas



StartupatBerkeleyLaw

SELECTED BERKELEY AI AND DATA SCIENCE RESOURCES



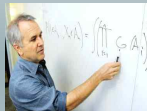
EECS Department



Berkeley Institute for
Data Science



Simons Institute
for Computing



Statistics Department



SADAV Institute



D-Lab



Berkeley Artificial Intelligence
Research Lab (BAIR)



Center for Long-term
Cybersecurity



School of Information



Rise Lab

ENERGY, CLIMATE AND THE ENVIRONMENT SELECTED PROGRAMS



ENERGY BIOSCIENCES INSTITUTE



**CLIMATE READINESS
INSTITUTE AND ENVIRONMENT**



**CALIFORNIA INSTITUTE
FOR ENERGY**



**ENVIRONMENTAL CHANGE
RESEARCH NETWORK @ BERKELEY**



ENERGEY INSTITUTE



**RENEWABLE & APPROPRIATE
ENERGY LAB**



CAL ENERGY CORPS

RESULTS

#1

Public University

1652

Startup Founders

1649

Active Inventions

#2

University for Entrepreneurs

1481

Startups

774

Active Patents

#4

in Most Successful Founders











\$780M

in Research Funding

814

Active Foreign Patents

TOP UNIVERSITIES FOR STARTUPS

Top Universities (2010 to 3Q 2013)			Ranked by number of alumni who founded companies that received a first round of VC funding.
	1. Stanford University	190	
	2. UC Berkeley	160	
	3. University of Pennsylvania	131	
	4. Harvard University	124	
	5. MIT	115	
	6. Cornell University	110	
	7. University of Michigan	93	
	8. University of Texas	80	
	9. Carnegie Mellon University	79	
	10. Indian Institutes of Technology	77	

Source: PitchBook

RECENT UC BERKELEY STARTUP SUCCESSES



Mobility Company
\$1B Valuation



Ultrasonic powered bioelectronic devices
Acquired for \$429M by Astellas Pharma



Ultra-low power Electronic sensor
Acquired by TDK



Robotics system for manufacturing

**HARVESTING
BERKELEY'S
CAPABILITIES TO
ESTABLISH THE
PLANNED UC
BERKELEY-KOREA AI
INNOVATION
INSTITUTE. NAMES OF
UC BERKELEY'S
PROPOSED/
POTENTIAL KOREAN
PARTNERS ARE
INCLUDED IN THE
ADJOINING VISION
HOUSE.
AN AGREEMENT TO
NEGOTIATE,
HOWEVER, IS NOT A
NEGOTIATED
AGREEMENT.**

**UC Berkeley - Korea
AI Innovation Institute**

Entrepreneurship and Human Capital Development

**Program : 1. Innovation Academy & Innovation Workshop
2. Innovation Hub Accelerator & Incubator**

'22/'23

EWU Lead*

**Ewha
Womans
University
+
TAF**

**Female/Asian
Leaders**

'22/'23

WSU Lead*

**WooSong
University
+
JNU/GIST**

**International
Schools**

'22/'25

SVBF Lead**

**LG/Sejong
Smart City
+
100 Sponsor
Companies**

**Rising
Cities**

Course : 1. Undergraduates+* 2. Graduates+* 3. Executives+**

Grants* + Scholarship, Internship & Sponsorship by Corporates**

**JV
Ewha+UCB
AI Innovation Institute**

Female Leader Development + Entrepreneurship

Catalyst to Transform Korea and Asia

'22/'23

Pilot-1*

**Innovation
Academy
&
Innovation
Workshop**

Undergraduates+

'22/'23

Pilot-2*

**Innovation
Hub
Accelerator
&
Incubator**

Graduates+

'22/'25

Pilot-3**

**AI
Advanced
Management**

Executives+

*** Governmental Grants + Partnership with The Asia Foundation**

****Scholarship, Internship & Sponsorship by Corporates**

PROGRAMS

To strengthen and expand top-tier skills and the talent base for thriving in the innovation economy, the Korea Innovation Institute will offer the following programs:

- **Innovation Academy**

To train talented college and graduate students and business executives in 21st century skills.

- **Innovation Hub**

To accelerate and incubate innovative ideas in technological applications to develop innovative startup companies.

- **Hybrid Startup Camp**

Post incubation for Korean startups at UC Berkeley to be exposed to the global market.

- **Inspiration**

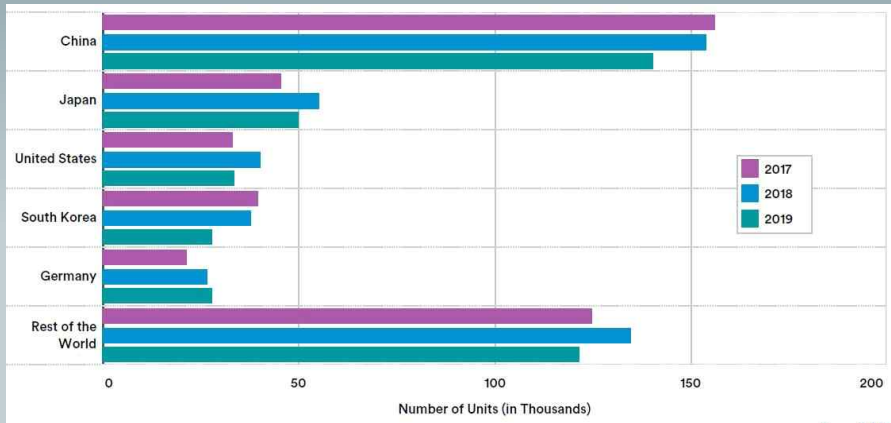
To inspire and motivate youth to be attracted to science, technology, innovation and creativity.

AI ADOPTION BY INDUSTRY & FUNCTION 2020

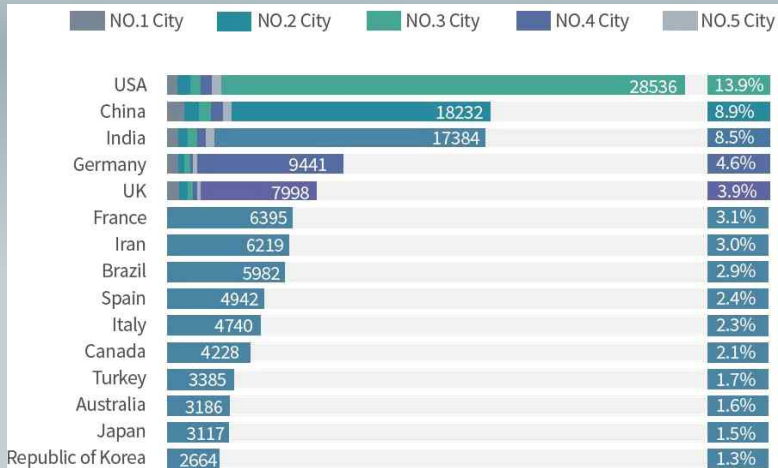
Industry	Human Resources	Manufacturing	Marketing And Sales	Product and/or Service Development	Risk	Service Operations	Strategy and Corporate Finance	Supply-Chain Management
All Industries	8%	12%	15%	21%	10%	21%	7%	9%
Automotive and Assembly	13%	29%	10%	21%	2%	16%	8%	18%
Business, Legal, and Professional Services	13%	9%	16%	21%	13%	20%	10%	9%
Consumer Goods/Retail	1%	19%	20%	14%	3%	10%	2%	10%
Financial Services	5%	5%	21%	15%	32%	34%	7%	2%
Healthcare/Pharma	3%	12%	16%	15%	4%	11%	2%	6%
High Tech/Telecom	14%	11%	26%	37%	14%	39%	9%	12%

% of Respondents

NEW INDUSTRIAL ROBOT INSTALLATIONS IN FIVE MAJOR MARKETS 2017-2019



GLOBAL DISTRIBUTION OF AI TALENT



GLOBAL DISTRIBUTION OF TOP AI TALENT

(TOP AI TALENT AS A PERCENTAGE OF ALL AI TALENT IN EACH COUNTRY)

Country	Number of top AI talent	÷	Number of total AI talent	=	top AI talent as a percentage of all AI talent in each country
USA	5158		28536		18.1%
UK	1177		7998		14.7%
Germany	1119		9441		11.9%
France	1056		6395		16.5%
Italy	987		4740		20.8%
China	977		18232		5.4%
Spain	772		4942		15.6%
Japan	651		3117		20.9%
Canada	606		4228		14.3%
Australia	515		3186		16.2%