



CONVENTION

# WELCOME TO THE



This convention aims to connect industry leaders to young enthusiasts and entrepreneurs. Join engineers, designers, and visionaries to explore the rapidly changing virtual / augmented reality industry. Experience the latest VR/AR products, hear from industry leaders, and network with like-minded individuals.

## ABOUT US

Virtual Reality at Berkeley is a student organization at UC Berkeley. We have partnered with Berkeley Robotics, Human Engineering and the Center for Augmented Cognition to host 15 different projects across multiple disciplines. General meetings are hosted weekly, Mondays 5-7 in Jacobs 310.



# SCHEDULE

9:30-10:00 Doors open

10:00 - 10:45 New Computing Interface Paradigm  
CECILIA ABADIE META

10:45 - 11:30 VR Video Content Creation &  
VR opportunities on Intel Platform  
NILESH SHAH / KIM PALLISTER / ATSUO KUWAHARA INTEL

11:30 - 12:15 Challenges for Next Gen VR/AR Experiences  
STAN BARAN / NILESH SHAH / DR. SUDHIR K. SINGH INTEL

12:15 - 12:30 Lunch

12:30 - 1:00 Communication in VR  
BIG SCREEN / LOOMAI / MORE EQUALS

1:00 - 1:45 Why VR Changes Everything (and What You Should Do About It)  
SAMI RAMLY WEVR

1:45 - 2:30 The Dream of Augmented Reality is the Dream for Superpowers  
BENJAMIN REINHARDT MAGIC LEAP

2:30 - 2:40 Enflux – Motion Capture Clothes for Everyone  
MICKY FERRI ENFLUX

2:40 - 3:15 Virtual Reality: Where I've been and Where You'll Take Me  
STEVEN OSMAN SONY

3:15 - 4:00 VR Production in the Cloud  
ANATOLI ADAMOV JAUNT VR

4:00 - 4:30 Curious Creatures: How Immersive Mediums Create More Creators  
NICK OCHOA MAGIK

# DEMOS



## **VR Content Creation on Intel Platform / Intel**

Intel invents at the boundaries of technology to make amazing experiences possible. Harnessing the capability of the cloud, the ubiquity of the Internet of Things, the latest advances in memory and programmable solutions, and the promise of always-on 5G connectivity, Intel is disrupting industries and solving global challenges.

The demo is a proof point for a real-time 360 video capture and creation system executing on a small form-factor consumer device. 6 FHD camera streams are combined into a single stream and rendered on a touch display with a 360 view plus a more common 16:9 ratio view with pan & zoom functionality.



## **VR Experiences / Wevr**

Wevr pushes the boundaries of VR both technologically and artistically, bear hugging independent creatives from different disciplines as we produce and distribute groundbreaking content together. They aim to provide a platform for VR creatives to showcase their work, grow an audience, and encourage dialogue between the two with Transport™, an independent curated VR network where brave VR can be shared, experienced and celebrated, on all headsets, worldwide. They will have a Vive setup showcasing some of the most popular WeVR content, including their famous award-winning VR experiences. Come try it out and get your mind blown in VR!



PlayStation.VR

## **PlayStation VR / Sony**

Recognized as a global leader in interactive and digital entertainment, Sony Interactive Entertainment (SIE) is responsible for the PlayStation brand and family of products. PlayStation has delivered innovative products to market since the launch of the first PlayStation in Japan in 1994. The PlayStation family of products and services includes PlayStation 4, PlayStation VR, PlayStation Now and PlayStation Vue. SIE also oversees Worldwide Studios, which is responsible for developing exclusive, world-class games for PlayStation. With the October 13th launch of PSVR just around the corner, we're happy to demo to you some of the exciting experiences you can expect on this platform.

# DEMOS



## **Virtual Village People / Enflux**

Enflux is developing motion capture clothes that allow you to become a virtual character just by moving your body. It's a shirt and pants with tiny built-in motion sensors. Perform mo-cap anywhere, anytime.

Enflux will be demoing "Virtual Village People," a fun and competitive virtual reality dance game on the HTC Vive. It's like Dance Dance Revolution with your body in virtual reality. Strike the right pose at the right time and beat the high score!

## **Project Landships / VR @ Berkeley**

### **PROJECT: LANDSHIPS**

Virtual Reality at Berkeley is a student organization at UC Berkeley. We have partnered with Berkeley Robotics, Human Engineering and the Center for Augmented Cognition to host 15 different projects across multiple disciplines.

Project:Landships is an undergraduate research project by UC Berkeley's VR@Berkeley club set on creating a compelling VR multiplayer experience that puts players and their friends in the roles of a tank, challenging them to work together and fight opposing tanks.



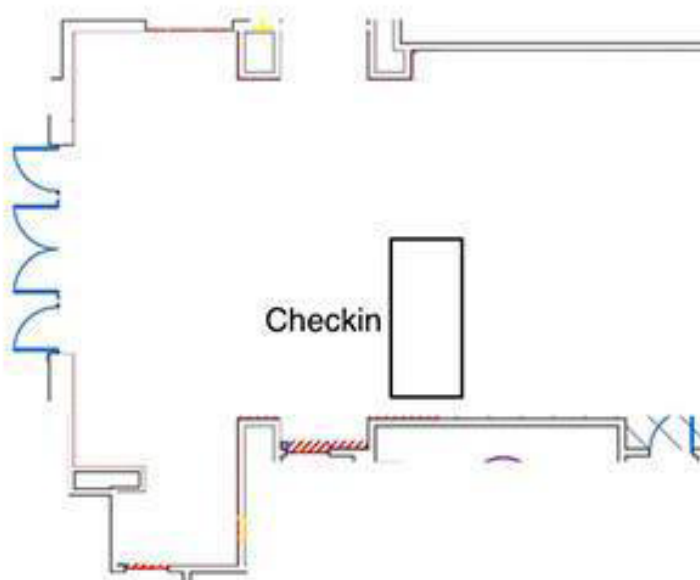
## **Virtual Campanile / VR @ Berkeley**

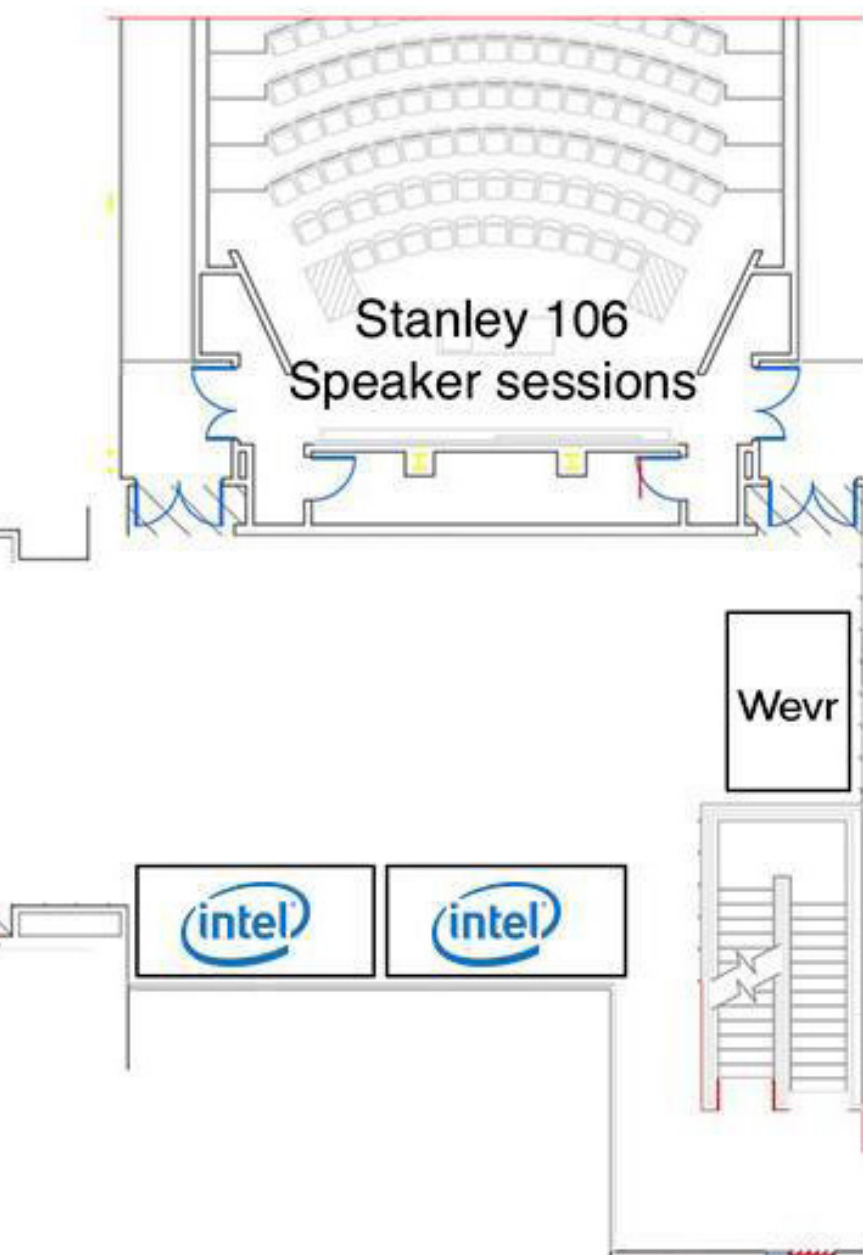
Virtual Reality at Berkeley presents the Campanile! The Campanile is the most iconic symbol of UC Berkeley, and at its peak sits the carillon, a massive musical instrument consisting of 61 bells. You can hear the carillon ring in the hour and broadcast music all around Berkeley, but few people ever get the chance

to play it. Using the Unity game engine and the HTC Vive, we created a virtual version of the Campanile along with an interactive carillon. The intention of this project is to provide people the chance to experience playing a well-known instrument that is rarely accessible on campus.

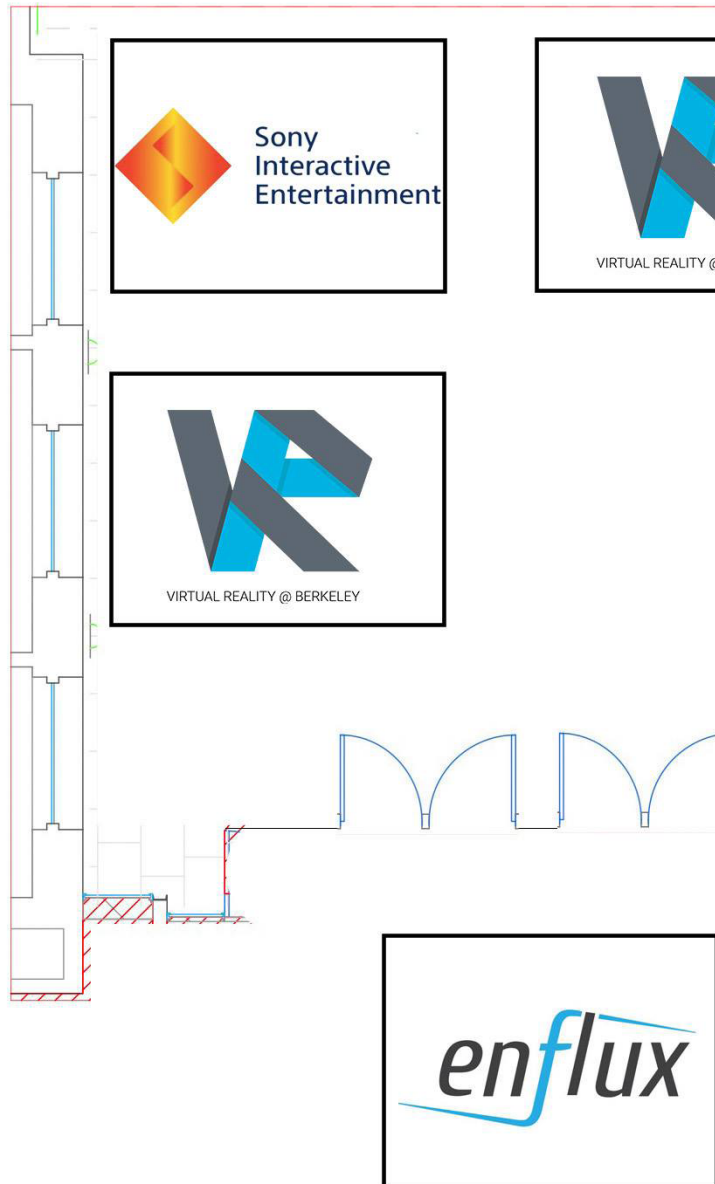
## Ground Floor

Main  
entrance

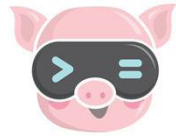




# B1 Floor



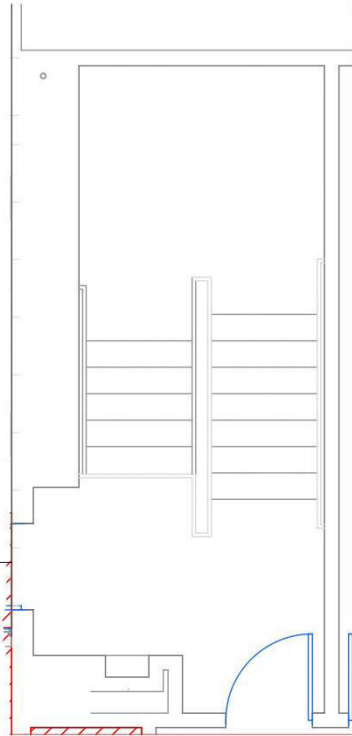




MORE EQUAL STUDIOS



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# SPEECHES



## **New Computing Interface Paradigm**

Cecilia Abadie - Meta

10:00 - 10:45

As part of the Customer Success team at Meta Cecilia is helping re-think the way we enable people to manipulate digital objects or holograms with their hands based on neuroscience research. She studied in Uruguay South-America and holds a Master in Information Systems.

As VR and AR are reaching technological maturity, mass awareness, and growing adoption, there is an increasing need to connect Neuro- and Cognitive-Sciences with hardware and software interface development. Digital tools are distributed in 3D space and have volumetric appearance, colocated audio, manipulability and in some cases, haptic identity. In this talk, we will discuss how neuroscience and spatialized digital information will synergistically scale human-machine interaction and potentially improve performance in real-world tasks.



## **VR opportunities on Intel Platform**

Nilesh Shah / Kim Pallister / Atsuo Kuwahara / Intel

10:45 - 11:30

Nilesh V. Shah is a Senior Director of Architecture in Client Computing Group at Intel Corporation. Nilesh leads the Architecture teams in the areas of Computer Vision, Machine Learning, Virtual Reality, Audio, Voice, Speech and Media architecture and technologies. Nilesh has been with Intel for 26 years and holds over 10 patents in the areas of System Performance, Power Management, Integrated Touch, Display, Media and Audio technologies. Nilesh holds a Master's Degree in Electrical and Computer Engineering from University of Wisconsin-Madison.

# SPEECHES



## **Challenges for Next Gen VR/AR Experiences**

Stan Baran / Nilesch Shah / Sudhir K. Singh / Intel

11:30 - 12:15

Stan Baran is a platform architect currently engaged in creating and developing new and emerging media/video usages with a focus on software architecture and software proof of concepts. Stan holds a BS in Mathematics from New Mexico Tech and an MS in Industrial Engineering from Stanford University.

Dr. Sudhir Kumar Singh is a Visual Computing and Machine Learning Architect in Client Computing Group at Intel Corporation, wherein he is driving the architectural requirements for Mixed Reality and other CV/ML usages. Sudhir holds a Ph.D. in Electrical Engineering from University of California, Los Angeles (UCLA).

In this talk we will explore the pipeline for capturing and creating 180-360 degree video content for VR, the challenges in this pipeline, and the role Intel plays in accelerating and enhancing this process.



## **Communication in VR**

Big Screen / LoomAI / More Equals

12:30 - 1:00

Kiran Bhat, Co-founder/CTO of LoomAI, will lead this panel. Kiran is the CTO and technical co-founder of LoomAI, a SF startup focussing on building 3d avatars from photographs. Prior to that, Kiran was head of the performance capture R&D team at Lucasfilm. He pioneered ILM's facial capture system that was used to create the Hulk in Marvel's Avengers, turtles in TMNT and orcs in the Warcraft movie. He holds a PhD in Robotics from Carnegie Mellon University.

This panel will focus on "Social VR" or "Communication in VR", and will touch upon people digitizing themselves for VR (in 3D), and having meaningful communications and shared experiences.

# SPEECHES



## **Why VR Changes Everything**

Sami Ramly / Wevr

1:00 - 1:45

Sami is the VR Product & Program Manager at Wevr, the leading LA-based Virtual Reality startup specializing in the production and distribution of high-quality VR experiences. Sami is currently leading the product efforts for Transport, Wevr's cross-platform VR distribution platform. Sami also sits on the Advisory Board of Rabbit Hole VR, Stanford's VR/AR maker community.

The change brought by VR will be bigger than anything we've ever seen. With the power of interactive storytelling, real sense of presence and the suspension of disbelief, VR creators, designers, developers, artists and entrepreneurs have the ability to push today the boundaries of the Adjacent Possible across almost every sector of our society. Come learn how Wevr is accelerating the paradigm shift to VR and how you too can get started in the VR industry today!



## **The Dream for VR is the Dream for Superpowers**

Benjamin Reinhardt / Magic Leap

1:45 - 2:30

Benjamin is currently a Deep Learning Researcher at Magic Leap. He is creating algorithms and systems at the intersection of product, research, and user experience. Prior to this, he was a Computer Vision Engineer where he worked on algorithms for a core Magic Leap feature. Innovation, intensity and tenacity aimed at bit-atom interfaces, software-reprogrammable hardware, robotics, and spacecraft are some of his core attributes. In the past, he received a PhD from Cornell in Space Robotics.

Benjamin strongly believes that technology should make the world more magical and today he will tell you more about products that will give people superpowers. Magic Leap is a US startup company that is working on a head-mounted virtual retinal display which superimposes 3D computer-generated imagery over real world objects, by projecting a digital light field into the user's eye.

# SPEECHES



## **Enflux – Motion Capture Clothes for Everyone**

Micky Ferri / Enflux

2:30 - 2:40

Mickey Ferri, PhD, is an entrepreneur, economist, athlete, and coach. He is passionate about bringing to market disruptive technologies that improve people's lives, especially in exercise, healthcare, sports, and entertainment. As Chief Growth Officer of Enflux, Mickey develops, implements, and directs the company's growth, including marketing, partnerships, revenue generation, and guest satisfaction. Mickey earned his PhD in economics from the University of Chicago, where he studied the economics of technology adoption.

Enflux makes revolutionary motion capture clothes, used for virtual reality, augmented reality, sports, and health care. They created the world's most affordable, mobile, and easy to use motion capture clothes, the first of its kind meant for consumers. Enflux's vision is to bring the power of motion capture to everyone.



## **VR: Where I've been and Where You'll Take Me**

Steven Osman / Sony Interactive Entertainment

2:40 - 3:15

Steven "Sauce" Osman is an avid gamer who is a member of PlayStation's Magic Lab, where he is exploring fun new interactions both in the virtual world (with PlayStation VR) and out in the real world (with novel input and output devices). He has worked on user interfaces, physics simulation, graphics, computer vision, Steven has received a Bachelor of Computer Science from Columbia University and a Master of Computer Science from Carnegie Mellon University.

This talk will start with a recollection of Steven's personal experience watching this wonderful virtual world unfold. Though it feels like a wild and crazy ride with innovations moving at light speed, there are still so many opportunities to explore and new areas to discover. He'll share some of the areas that he finds the most exciting in the hopes that he can inspire you to come up with great solutions.

# SPEECHES



## **VR Production in the Cloud**

Anatoli Adamov / JauntVR

3:15 - 4:00

Anatoli came to US as a refugee. Started his career as a dishwasher in local hospital. Moved on to graduate studies at Harvard. In the more recent times, he has founded and sold the computer vision startup Stanford Robotics. Two years ago he became one of the first employees at Jaunt VR, taking production pipeline from its early version running on handful of servers in the back closet to AWS powered on demand system running globally on tens of thousands of nodes. Anatoli is currently an International Director of Engineering building teams.

Jaunt Inc. develops hardware, software, tools, and applications to enable cinematic VR. It creates content for brands, artists, and filmmakers through its studio arm; and provides branded and original VR content for audiences worldwide. The company was founded in 2013 and is based in Palo Alto, California.



## **Curious Creatures**

Nick Ochoa / Magik

4:00 - 4:30

Nick got his start in VR in 2014 as a founder of UploadVR. He continued his journey around the world as the Global VR Evangelist at KaleidoscopeVR. Through this journey he experienced things so beautiful words don't even come close to describing them. This lead him down a new path, a new journey, as the founder of Magik.

New forms of art are being born right in front of eyes. Experiences are sparking curiosity, stimulating wonder, and transforming people's perspectives on the world. New languages of expression are expanding our imaginations towards their limitless potential. And the crazy thing about it, is that we're just getting started.



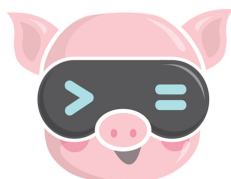
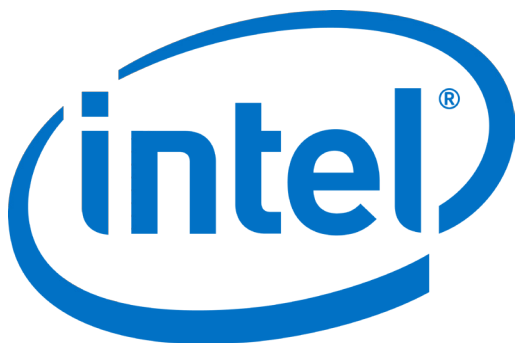
Meta has been defining Augmented Reality (AR) since the company's inception in 2012. Meta began the advancement of the AR marketplace with the first see-through glasses that enabled developers and users to use natural hand interactions to intuitively move and manipulate 3D content.

With its new Meta 2 headset, Meta is once again setting the AR market standard by designing a product that will forever change the computer interface paradigm by making the user the centerpiece of the operating system. This new paradigm – based on established neuroscientific principles and designed to adjust to each user's individual computing experience – promises to enhance and improve individual and group work productivity in ways never before imagined.

Meta is looking for pioneers – gifted, motivated individuals who not only think outside the box, but shatter it -- to create their own new reality by joining the Meta team.

Meta is found online at [www.metavision.com](http://www.metavision.com).

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