

GIGHACKS RECAP



294 PARTICIPANTS

40 PROJECTS PRESENTED

5 CITIES ACROSS THE U.S.

SAN FRANCISCO *100 participants 14 projects presented*

Frame is a cloud platform that lets you run any app in the cloud and access it from any device. The team built a technology that deploys and scales virtualized apps in the cloud, run them on powerful servers, then screen-grabs things on the server side (in the cloud) and sends it to your device as super-low latency video.

Virtual Reality Streaming for Social Good arranged two high definition webcams in a stereoscopic configuration to capture two video streams simultaneously. They then combined the two webcam streams into a Virtual Reality headset composite, and stream that over the gigabit network to a smartphone using WebRTC. The smartphone runs html5 code on a chrome browser that displays one video stream to each eye, proving for an immersive virtual reality experience. The webcam setup can be mounted on a Kubi Robot that is controlled by a 9DoF motion sensing Plantronics earpiece. They were able to transmit this anywhere and have a demo of cross-country transmission from San Francisco to Kansas City.

KANSAS CITY *66 participants 5 projects presented*

Bopp, a team sent to us from the recent OneDayKC student startup challenge, spent the weekend working on an app that visualizes a city's social media data to show what's trending where. Other apps have trend-mapped social data before, but Bopp brings a civic engagement element by focusing on the two-mile streetcar corridor targeted for the Cisco Smart + Connected Communities pilot in KCMO.

News Live 360/3D is the brainchild of a seasoned broadcast journalist (Sarah Hill of Veterans United), a telepresence entrepreneur (Richard Welnowski of SightDeck), and an advocate of digital storytelling for K-12 students (Ron Green of the DigiStory Center). The project's goal is to use gigabit broadband to livestream news programming to virtual reality devices such as Google Cardboard and Oculus Rift, effectively turning the "flat world" of TV news into an immersive experience for viewers. The project is in its early developmental stages, but will be developed further as a platform and product focusing on next-level digital media experiences.

CHATTANOOGA 50 participants 7 projects presented

CloudPlay developed by Jonathan Williams, Tim Coy and Ustin Zarubin, is a new way to play desktop games or launch large applications directly from the cloud without having to hassle with traditional downloading, installing, or updating. This is great for trying out new software, not having to ever worry about having enough disk space, or just quickly playing a new game at friend's house. Compared to other game streaming services, CloudPlay streams the game or application data directly, rather than running the game on a remote server and then trying to stream back the gameplay as video.

Kinect Across, developed by Carbon Five's Alex Cruikshank, sends 3D geometry data through a WebRTC data channel to create a shared virtual reality experience across networks. It combines several newish browser technologies including WebRTC, WebGL, WebVR and WebSockets to integrate the hardware devices (in this case, a Kinect and an Oculus Rift), move the data across networks and visualize the results.

BURLINGTON 44 participants 10 projects presented

Automated Search and Rescue combined 3D Kinect and heat sensor mapping capabilities on a small gig-controlled autonomous vehicle to build a device for enhancing search and rescue efforts during events such as earthquakes, children lost in the woods, incapacitated people inside smoky buildings.

Virtual reality-driven, scenario-based training for police created a training module in which police are trained to deal with citizens in a range of scenarios. Scenarios were assigned probabilities based on citizen demeanor and other factors (e.g., possession of a gun) and police were offered a range of potential actions based on each scenario. It is hoped that this "edu-game" requested by the Burlington chief of police will keep police from gravitating toward the worst-case scenario, as is often the case today based on current training techniques.

CHARLOTTE 34 participants 4 projects presented

Simuloffice is an app that helps distributed teams work better. When users log into the app via the web or mobile device, they will see virtual offices with sets of teams working together. After choosing a team to work in, users receive a live continuous video feed. The volume of the video feed is dependent on what working team the user is nearest. Further away teams are quiet and closer teams are loudest. This enables the user to collaborate without intruding on current conversations and still hear discussions that may be useful to their work.

Orphans in the Desert is a medical diagnostic tool where a doctor collects relevant medical data and then performs bulk remote computing for diagnostic information on incredibly rare disorders. The hack was set up to allow a doctor to input as many analytics on the person as possible, and then uploads to the IBM Watson platform to analyze it and provide a diagnosis.