

Extending our system's utility for crowdsourcing social activism and optimizing CV training data collection.

## RELEVANT EXPERIENCE

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- AUG '19 – DEC '19 | **Electrical Muscle Stimulation VR - Capstone Project Tech Lead**  
*CS294-137 Virtual Reality and Immersive Computing*  
Devised an electrical muscle stimulation haptic feedback system to immerse users further in VR.  
Constructed a three-part system - hacking EMS device circuits, building an Arduino Unity-EMS bridge, and designing Oculus VR experiences (drums, tennis, shooting range) with the appropriate muscle stimulation
- JAN '20 – PRESENT | **Software Division Lead, Neurofit AR Project Manager**  
*Neurotech @ Berkeley*  
Directing the software division and overseeing EEG data projects including a self-care/health educational tool, music creation module, and human visual system reconstruction.  
Leading collaboration with Neurofit startup to utilize ARKit gaze detection for oculometric data to diagnose neurological conditions such as Alzheimer's and traumatic brain injury.
- FEB '19 – JAN '21 | **AR for VIPs Team Lead, Officer**  
*Extended Reality @ Berkeley*  
Developing a Hololens app providing audio assistance for visually impaired users to navigate surroundings.  
Mapping voice commands and hand gestures to our assistive audio functions for reading text aloud from street signs and sonifying nearby surroundings with attached audio beacons
- AUG '20 – DEC '20 | **Piano Palette AR Technical Lead**  
*Jacobs Institute Innovation Catalysts Spark Grant Winner*  
Designing a real-time piano AR visualization experience to elicit deeper connections with classical music.
- MAR '19 – MAY '19 | **Scene Generation and Texture Mapping of Indoor Scans - Capstone Project Tech Lead**  
*CS184/284 Computer Graphics and Imaging*  
Automated the generation of new 3D house scan data with customizable layouts and texture mappings.

## PROFESSIONAL EXPERIENCE

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- MAY '20 – AUG '20 | **Software Development Engineer Intern**  
*Amazon, Inc.*  
Designed and implemented a Java backend API for calculating the cancellation date for Purchase Orders.  
Created a UI displaying the successful results of API calls on many POs covering complex policies and cases.  
Established the groundwork for significant improvements to internal tool predictions and vendor UX clarity.

## TEACHING

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- OCT '19 – OCT '20 | **Hackathon Mentor**  
*CalHacks, Berkeley Hack Month*  
Provided assistance and guidance to hackers in need during CalHacks (world's largest collegiate hackathon).  
Coaching and advising various teams throughout the month of Berkeley Hack Month 2020.
- JAN '19 – DEC '19 | **Academic Intern**  
*(CS61B) Data Structures, (CS61A) Interpretation of Computer Programs*  
Simplifying and explaining programming fundamentals and data structure uses to students in lab sections.

## REFERENCES

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| <b>BJOERN HARTMANN</b><br><a href="mailto:bjoern@eecs.berkeley.edu">bjoern@eecs.berkeley.edu</a> | Assoc. Professor of Electrical Engineering and Computer Science, UC Berkeley<br>Faculty Director of the Jacobs Institute for Design Innovation   |
| <b>ALLEN YANG</b><br><a href="mailto:yang@eecs.berkeley.edu">yang@eecs.berkeley.edu</a>          | Principal Investigator in Electrical Engineering and Computer Science, UC Berkeley<br>Executive Director of FHL Vive Center for Enhanced Reality |
| <b>LUISA CALDAS</b><br><a href="mailto:lcaldas@berkeley.edu">lcaldas@berkeley.edu</a>            | Professor of Architecture, UC Berkeley<br>Founder and Director of the XR Lab - Virtual and Augmented Reality Lab                                 |

## OTHER INTERESTS AND ACTIVITIES

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Chelsea fan, skateboarding, pickup soccer + basketball (intramural team captain), bedside reading (Norwegian Wood, Slaughterhouse Five, Snow Crash), TV (Bojack Horseman, Mr. Robot, Mr. Sunshine), concerts (FKJ, Brockhampton, Tame Impala), snacking, traveling, photography