ELLE LUO, M.S.

User Experience & Human-Computer Interaction Researcher

949-870-2776 | elleluo09@gmail.com | LinkedIn/elleluo | elleluo.com | San Francisco, CA

SUMMARY

Experienced UX / HCI researcher with a passion for wearable technology research and developing novel user interfaces. Demonstrated expertise in initiating research efforts aimed at optimizing technology usability and enriching the human experience, utilizing sensors data collection methods, and prototypes testing. Proficient in performing both quantitative and qualitative data analysis, adept at shaping digital and physical products. Additionally, I excel at exploring undefined spaces and building innovative interactive technology supported by research and data, enabling the transformation of novel ideas into tangible products.

EXPERIENCE

UX Researcher

Meta Reality Labs | 08/2023 - Present | Burlingame, CA

(Contract via Magnit)

- Direct Responsible Individual (DRI) for the Quantified Wearability team's research labs based in California (USA)
- Collected and analyzed 200+ subjects' head scans using 3dMD scanner and conducted statistics analysis in Python to compute anthropometric data
- Designed and executed various studies on wearability and feature implementation of the Meta's Smart Glasses
- Developed a neural network MLP machine learning model using PyTorch to predict wearables' contact locations and conducted accuracy assessment by comparing the predicted data vs. ground truth
- Worked closely with program managers, research scientists, and other UX researchers to define & execute studies planning and timelines alignment

UX Researcher

Business Wire | 01/2023 - 07/2023 | Remote, CA

(Contract via Russell Tobin)

- Led user research on Business Wire's next generation products to drive design and make recommendations and decisions based on research findings
- Conducted research studies on web and mobile platforms to gather insights and feedback from users regarding product usability, features, and functionality
- Developed and implement research plans and methodologies, including surveys, interviews, and usability testing
- Utilize analytical tools to monitor user's activities and gather data, such as conversion rate, engagement, page views, traffic sources, and demographics on the website and mobile app

Usability Specialist III, Industrial Design

AMAZON LAB126 | 01/2022 - 12/2022 | Sunnyvale, CA

(Contract via 24 Seven Talent)

- Designed and conducted research, surveys, user interviews and benchmarking studies to assess critical elements in defining design and specification of products
- Conducted 30+ subjects in-person research per user study to assess the comfort, fit, and stability of wearable technologies in both static and dynamic settings
- Collected and analyzed data in both qualitative and quantitative domains to provide report and design recommendations to the stakeholders in cross-functional teams
- Researched a variety of hardware products, including wearable technology, medical devices, consumer robots, e-readers and more to support the development of future products

EDUCATION

M.S. in Human Factors and Ergonomics; Minor: Computer Science

Cornell University

B.A. in Design, Interaction Design

UC Davis

SKILLS

Human Factors Research

Hardware Research (Wearables)

Statistical Analysis (Python)

Biometrics & Anthropometry

Survey Design (Qualtrics, DScout)

Experimental Design | User interviews

Human-centered Design

Machine Learning Model Development

Multi-Layer Perceptron (MLP) | PyTorch

Technology

Wearable Computing (Arduino, Sensing, Signal Processing)

3dMD | VR (Unity 3D)

3D Modeling (Autodesk Fusion 360)

Web Development (JavaScript, HTML/CSS))

User Interface Design (Figma)

Soft Skills

Teamwork | Problem Solving

Communication | Scientific Writing

AWARDS

Best Paper Honorable Mention Award

ACM International Symposium on Wearable Computers (2019)

EXPERIENCE

Human Factors/UX Researcher, Wearables

GOOGLE 09/2021 - 11/2021 Mountain View, CA

(Contract via Pro Unlimited)

- Led product research and delivered reports to contribute towards positive user experience and product outcomes of Google wearables including the Pixel Watch
- Conducted in-person user studies, analyze the results and provide report and overview product findings
- Designed and distributed survey to collect/analyze quantitative and qualitative data to understand product usability and user experience

Graduate Research Assistant

DESIGN & AUGMENTED INTELLIGENCE LAB

04/2020 - 08/2021 Ithaca, NY

- Developed wearable electroencephalography (EEG) devices that involves design decisions, fabrication, and building functional prototypes
- Collected and analyzed EEG in time series and using power distribution through programming in MATLAB and compared the signal quality of prototypes with commercially available EEG products for device validation
- Designed and conducted in-person user research experiments with 14 subjects assessing usability, user experience and social acceptability of wearable EEG system

Graduate Research Assistant

HYBRID BODY LAB 01/2019 - 03/2020 Ithaca, NY

- Engineered an on-skin wearable capacitive sensing device on the eyelid that affords blink detection for data collection programmed in Arduino IDE
- Conducted 20+ subjects in-person user studies and 200+ subjects online studies evaluating user's perceptions in wearable technology

Research Assistant

INTERACTIVE ORGANISMS LAB 01/2018 - 12/2018 Davis, CA

- Built a multi-sensory Virtual Reality (VR) environment using Unity 3D programmed in C# and Arduino IDE

PUBLICATIONS

Eslucent: An eyelid interface for detecting eye blinking.

In Proceedings of the 2020 International Symposium on Wearable Computers.

E. Luo, R. Fu, A. Chu, K. Vega, and H.-L. Kao.

Scentery: A calming multisensory environment by mixing virtual reality, sound, and scent.

In Proceedings of the 20th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct (2018).

E. Luo and K. Vega.

NeuroBits: Designing Microbead Wearable EEG Electrodes for Human-Computer Interfaces.

ecommons.cornell.edu

E. Luo.

Understanding social perceptions towards interacting with on-skin interfaces in public.

In Proceedings of the 23rd International Symposium on Wearable Computers (2019).

C.-W. You, Y.-F. Lin, E. Luo, H.-Y. Lin, and H.-L. Kao.

LANGUAGES

English	Proficient ●●●●○
Chinese	Native ●●●●●