

# Elle Luo, M.S.

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## SUMMARY

I am a mixed methods researcher with a Master's degree in HCI/human factors engineering at Cornell University. I work cross-functionally to collect and analyze data that contributes towards providing design directions of the next generation products. My areas of expertise include designing and executing research to understand technology usability and user experience, collecting human behavioral data through sensors and testing prototypes and tools, data analysis within the qualitative and quantitative domains as well as building interactive prototypes starting from ideas to functional.

## EXPERIENCE

**Business Wire** (A Berkshire Hathaway Company) | UX Researcher Remote | Jan 2023 - Present

- 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.
- Analyzed research findings in both qualitative and quantitative domains to inform product design and development.
- Worked cross-functionally with 5 Product Managers, 3 UX Designer/Engineers, Sales & Marketing teams, UX Manager, and Head of Product and strategy to inform design and make decisions on developing future products.

**AMAZON LAB126** | Usability Specialist III, Industrial Design. Sunnyvale CA | Jan - Dec 2022

- 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.

**GOOGLE** (Via Pro Unlimited) | Human Factors/UX Researcher, Wearables. Mountain View CA | Sep - Nov 2021

- Led a product research and delivered reports to contribute towards positive user experience and product outcomes of Google's wearables, 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.

**DESIGN & AUGMENTED INTELLIGENCE LAB** | Graduate Research Assistant Ithaca NY | April 2020 - Aug 2021

- 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.

**HYBRID BODY LAB** | Research Assistant Ithaca NY | Jan 2019 - March 2020

- 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 over 200 subjects online studies evaluating user's perceptions in wearable technology.

**INTERACTIVE ORGANISMS LAB** | Research Assistant Davis CA | Jan - Dec 2018

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

- Designed public promotional materials and signage for installations for research project, Play the knave.

## EDUCATION

### MITx Courses

[In-Progress] MicroMasters Program in Statistics and Data Science (General Track)

### Cornell University

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

Thesis: Designing Microbead Wearable EEG Electrodes for Human Computer Interfaces

### UC Davis

B.A. Design, Interaction Design

## SKILLS

**Mixed Research Methods:** Survey Design (Qualtrics, DScout), Experimental Design, User Interview, Usability Testing, Content Analysis, Analytical Tools (Google Analytics, LogRocket), Statistical Analysis (Python).

**Technology:** Prototyping (Figma, Arduino), VR (Unity 3D), 3D Modeling (Autodesk Fusion 360), Web Development (JavaScript, HTML/CSS).

**Art & Design:** Design Thinking, Adobe Creative Suite, Creative Coding (Processing), Photography, Drawing.

**Soft Skills:** Bilingual Communicator (English, Mandarin), Scientific Writing (4 publications), Teamwork, Problem Solving.

## HONOURS & AWARDS

Best Paper Honourable Mention Award | ACM International Symposium on Wearable Computers (ISWC) 2019

## Publications

- [1] E. Luo. NeuroBits: Designing Microbead Wearable EEG Electrodes for Human-Computer Interfaces. 2021.
- [2] E. Luo, R. Fu, A. Chu, K. Vega, and H.-L. Kao. Eslucent: an eyelid interface for detecting eye blinking. In Proceedings of the 2020 International Symposium on Wearable Computers, pages 58–62, 2020.
- [3] E. Luo and K. Vega. 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, pages 158–165, 2018.
- [4] C.-W. You, Y.-F. Lin, E. Luo, H.-Y. Lin, and H.-L. Kao. Understanding social perceptions towards interacting with on-skin interfaces in public. In Proceedings of the 23rd International Symposium on Wearable Computers, pages 244–253, 2019.