

Megan McCray

(681)361-0495

Megan.McCray@coyotes.usd.edu

<http://www.linkedin.com/in/mccray-megan>

Professional Experience

User Experience (UX) Researcher

Bayer AG | St. Louis, MO | May 2023 – August 2023

Human Factors Engineer Intern

Genentech | South San Francisco, CA | May 2022 – September 2022

- Analyzed data to pioneer a demographics dashboard to track diversity and inclusion efforts within Human Factors studies
- Co-authored Instructions for Use documents for combination products, software, and devices
- Engaged internal and external teams in product packaging and labeling finalization

Associate Human Factors Consultant

Suttons Creek | Woodland Hills, CA | June 2021 – Present

- Led client interactions with Fortune 500 key stakeholders and project managers
- Drafted and finalized HF/UE deliverables and slide decks for client meetings
- Facilitated consultant-client conversations to ensure objective clarity of project expectations

Junior Human Factors Consultant

Suttons Creek | Woodland Hills, CA | November 2020 – June 2021

- Support as a consultant on Gap Analyses, Formative and Summative Studies, Instructions for Use (IFU), and Heuristic Evaluations
- HF guidance and standard adherence:
 - FDA-2011-D-0469; IEC 62366-1; IEC 62366-2; ISO 14971:2019(E); HE-75

Financial Aid Counselor

University of Charleston | Charleston, WV | August 2019 – October 2020

- Boosted policy compliance and process uniformity by creating detailed procedure reference guides
- Worked with virtual platform programmers to implement student “self-service” abilities
- United co-workers to absorb director responsibilities, minimizing effects of employee turnover

Patient Care Assistant

Cabell-Huntington Hospital | Huntington, WV | September 2016 – July 2019

- Redesigned patient care processes and layout to promote efficiency and reduce physical/mental stress
- Proposed work redistribution plan to utilize Patient Care Assistants and volunteers properly
- Trained 40+ staff members on reformed processes and procedures

Research and Teaching Experience

University of South Dakota TRAC Program Apprentice

Technology, Readiness, and Acceleration Center (TRAC) | May 2022 - Present

- Conduct market research, customer discovery interviews, and business development activities for market readiness for start-up Human it.
- Serve on executive team to support tech development and business incorporation for start-up GreenLight Bionics.

University of South Dakota Graduate Research Assistant

Department of Psychology | Memory & Attention Lab | November 2020 - Present

- Thesis work includes the study cognitive load and working memory through dual-task procedures. Application of a workload measure is expected to offer insight into why well-known effects are limited to specific stimuli.
- Assist in additional studies considering creativity, masking effects, EEG, and eye-tracking applications for dual tasks.

Graduate Teaching Assistant

University of South Dakota | Vermillion, SD | August 2020 – Present

- Taught lab section and performed associated grading and coursed management
 - Sensation and Perception
- Supported attendance and grading for major professors
 - Cognitive Psychology, Lifespan Human Development,

Education

University of South Dakota | Vermillion, SD

Master of Arts, Psychology: Human Factors, Expected: Spring 2023

- Fall 2022 Coursework: Experimental Methods & Instrumentation, Human Factors in Computer Systems, Medical Product Development
- Summer 2022 Coursework: Experimental Methods & Instrumentation (EEG), Human Factors Practicum, Leadership Development
- Spring 2022 Coursework: Intro to Human Factors, Research in Aging, Computational Modeling
- Fall 2021 Coursework: Learning, Memory, and Cognition
- Spring 2021 Coursework: Human Performance, Eye Tracking, Research Design & Statistics II
- Fall 2020 Coursework: Usability Testing, Human Engineering, Research Design & Statistics I

Marshall University | Huntington, WV

Bachelor of Arts, Psychology: Fall 2015 – Spring 2019

- Capstone Experience included first-hand volunteering with CONTACT Rape Crisis center and resulted in a whitepaper exploring the utilization of Sexual Assault Response Teams (SARTs) within communities.

Publications

Proceedings

Niamba, K., Schieber, F., & McCray, M. (2021). *Myoelectric Control: an alternative to Mirror Therapy*. Proceedings of the Human Factors and Ergonomics Society Annual Meeting, 65(1), 948–950. <https://doi.org/10.1177/1071181321651346>

Conference Posters & Presentations

Posters

- O'Daniel, Kaycee, McCray, Megan M., Woodard, Abbie, Nakarmi, B.E., Suprim, Nwanevu, B.E., Chinonso & Engebretson, Ph.D., Dan (2023) *Human It: A South Dakota-based human factors consultancy established through the guidance of the USD TRAC program*. University of South Dakota IdeaFest. Vermillion, SD, March.
- McCray, Megan M., & Harmon, Ph.D., Aaron F. (2022) *Assay Prototype Designs: Applying Human Factors Principles to a Multistep Biologic Screening Technique*. University of South Dakota IdeaFest. Vermillion, SD, March.
- McCray, Megan M., Cotton, M.A., Kelly, & Ricker, Ph.D., Timothy J. (2021) *Predicting Working Memory Performance: Is Perceived Workload Better Predictor than Cognitive Load?* Trends in Psychology Summit. Virtual Conference, November.
- McCray, Megan M., Cotton, M.A., Kelly, & Ricker, Ph.D., Timothy J. (2021) *Working Memory Performance: Is Subjective Measurement a Better Predictor than Cognitive Load?* Psychonomic Society, 2021 Annual Meeting. New Orleans, LA, November.
- Niamba, Kouadio M., McCray, Megan M., & Schieber, Ph.D., Frank (2021). *Myoelectric Control: a virtual reality application*. Human Factors and Ergonomics Society, 65th Annual Conference, Baltimore, MA, October.
- McCray, Megan M., Cotton, M.A., Kelly, Ricker, Ph.D., Timothy J. (2021) *Does Perceived Workload Better Predict Working Memory Performance than Cognitive Load?* South Dakota Psychological Association. Rapid City, SD, September.
- Niamba, Kouadio M., McCray, Megan M., Steinley, Alex R., Schieber (2021). *GreenLight Bionics: Product development for treatment of amputees and impaired motor capability patients*. South Dakota Chamber of Commerce & Industry, Governor's Giant Vision Student Competition. Sioux Falls, SD, April.
- McCray, Megan M. and Niamba, Kouadio M. (2021). *Myoelectric Control: a virtual reality application to the solution of Phantom Limb Pain (PLP)*. University of South Dakota, Department of Psychology, Human Factors Research Colloquium. Vermillion, SD, April.
- Niamba, Kouadio M., McCray, Megan M., Steinley, Alex R., Schieber, Ph.D., Frank (2021). *Myoelectric Control: a virtual reality application to the solution of Phantom Limb Pain (PLP)*. University of South Dakota IdeaFest. Vermillion, SD, April.
- Hoffman, Haley R., Marron, Miranda J., McCray, Megan M., Niamba, Kouadio M., Peterson, Ph.D. Douglas (2021). *Development of Thumb Typing Keyboard* University of South Dakota IdeaFest. Vermillion, SD, April.

Professional Presentations

- Dangler, Alex A., McCray, Megan M., & Nare, Matthew, (2023). *DeviceRater: A medical device review app*. University of South Dakota IdeaFest. Vermillion, SD, March.
- Marron, Miranda J., Hoffman, Haley R., McCray, Megan M., & Niamba, Kouadio M. (2022). *UHealth: A 'Self-Care' Tracking Application*. University of South Dakota IdeaFest. Vermillion, SD, March.
- Hoffman, Haley R., Marron, Miranda J., McCray, Megan M., & Niamba, Kouadio M. (2022). *Human Factors and Ergonomics in Health Care Mobile App Design Competition Finalist*. Human Factors and Ergonomics Society in Healthcare Symposium, New Orleans, Louisiana, USA.

- McCray, Megan M., (2021). *Applying Human Factors to the Combination Product Space*. University of South Dakota, Department of Psychology, Human Factors Research Colloquium. Vermillion, SD, November.
- McCray, Megan M., (2021). *Introduction to Human Factors*. Marshall University Psi Chi. Huntington, WV, October.
- Mac New, Hanna, McCray, Megan M., & Hanley, Marielle (2021). *Human Factors Training Seminar*. Suttons Creek, Inc., Virtual Meeting, July.
- McCray, Megan M. (2021) *Human Factors*. Quality, integration, Best Practices, Innovation and Technology (QUIBIT). Sioux Falls, SD, July.
- McCray, Megan M., & Niamba, Kouadio M. (2021). *Myoelectric Control: a virtual reality application to the solution of Phantom Limb Pain (PLP)*. University of South Dakota, Department of Psychology, Human Factors Research Colloquium. Vermillion, SD, April.

Grants & Awards

Grants

- Graduate Research and Creative Scholarship Grant (\$390), The Graduate School, University of South Dakota, 2023.
- Tech2Launch (T2L) Funding, HF/UE Lab, The University of South Dakota and Other Supporting SD Entities (\$4,400), July 2022.
- Customer Discovery Grant for GreenLight Bionics (\$1,500), South Dakota Biotech, March 2022.
- Graduate Research and Creative Scholarship Grant (\$750), The Graduate School, University of South Dakota, 2020.

Awards

- The Governor's Giant Vision Student Competition Semifinalist (\$500), Human It, South Dakota Chamber of Commerce & Industry, April 2023.
- Invent to Innovate (i2i) Business Model Competition 2nd Place Award (\$1,500), Human It, The University of South Dakota Beacom School of Business, April 2023.
- Invent to Innovate (i2i) Business Model Competition 3rd Place Award (\$1,000), GreenLight Bionics, The University of South Dakota Beacom School of Business, April 2022.
- Human Factors and Ergonomics in Health Care Mobile App Design Competition Semifinalist, HFES Healthcare, March 2022.
- Norman Heimstra Memorial Scholarship (\$300), University of South Dakota Foundation, University of South Dakota, March 2021.
- SDPA First Place Student Poster Award (\$60), South Dakota Psychological Association, September 2021.
- Norman Heimstra Memorial Scholarship (\$500), University of South Dakota Foundation, University of South Dakota, August 2021.
- The Governor's Giant Vision Student Competition 5th place award (\$1,000), GreenLight Bionics, South Dakota Chamber of Commerce & Industry, April 2021.

Professional Memberships

- South Dakota Psychological Association (SDPA) Student Member, *September 2021 – August 2022*
UTEST: A Community for Usability Professionals Member, *March 2021 – Present*
Human Factors Transforming Healthcare (HFTH) Group, *September 2020 – Present*
Center for Brain and Behavior Research Student Organization Member, *August 2020 – August 2022*
Psychonomic Society Student Member, *October 2020 – August 2022*
User Experience Professional Association (UXPA) International
 - Student Member, *October 2020 – Present*Human Factors & Ergonomics Society (HFES) Student Chapter, *August 2020 – Present*
 - President, *August 2021 – August 2022*
 - Student Member, *August 2020 – August 2021*Human Factors & Ergonomics Society (HFES), *August 2020 – Present*
 - Student Member, *August 2020 – Current*Graduate & Professional Student Association (GPSA), *August 2020 – August 2022*
 - GPSA Media Manager (Appointed), *August 2021 – August 2022*
 - Digital Accessibility Committee Representative, *August 2021 – August 2022*
 - President's Council of Diversity & Inclusiveness Representative, *August 2021 – August 2022*

Computer and Software Skills

PsychoPy, MATLAB, RStudio, Axure, Adobe XD, Figma, Mural, Miro, Microsoft Office Suite

Volunteer Activities

- OmegaQuant® Test Kit Packaging and Documentation Heuristic Review
University of South Dakota | December 2022 – December 2022
- Auditory Medical Device Human Factors Review Support
University of South Dakota | August 2022 – December 2022
- Heuristic Tool Development Team Member
Human Factors Transforming Healthcare (HFTH) Group | October 2021 - Current
- Court System Documentation User Experience (UX) Project Volunteer
UX Trial Court Form Project | May 2021 – September 2021
- UXPA Volunteer
User Experience Professionals Associations International (UXPA) | 2021
- Center for Brain and Behavior Research (CBBRe) Spooky Science Fair Volunteer
Washington Pavilion | Sioux Falls, SD | October 13, 2020, October 16, 2021, & October 15, 2022

Additional Media

- Harmon, Ph.D., Aaron (Host), (2021, September 28). Intermission: Megan McCray – Human Factors Student, Pizza Critic. In *Inside Out Quality*.
<https://www.buzzsprout.com/1490413/9226199>