

Nick Soulign

College of Engineering, The University of Arizona

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EDUCATION

Aug. 2022 – Present	PhD in Biomedical Engineering (Minor: Neuroscience) University of Arizona, Tucson, AZ
May 2022	Master of Engineering in Bioengineering (Concentration: Bioinstrumentation) University of Illinois at Urbana-Champaign, IL
Dec. 2020	Bachelor of Science in Computer Science (Minor: Mathematics) Illinois State University, IL
May 2018	Associate of Science in Computer Technology Kankakee Community College

PROFESSIONAL EXPERIENCE

Aug. 2022 – Present	Graduate Research Assistant , Health Systems Engineering & Informatics Laboratory, University of Arizona, Tucson, AZ, Mentor: Vignesh Subbian Collaborated on various research projects including an exploration and characterization of the <i>All of Us</i> data and participated in NIH's NCATS Bias Detection challenge to develop a tool to assist researchers in detecting bias in clinical machine learning models.
Mar. – Aug. 2024	<i>All of Us</i> Research Program Data Fellow , National Institutes of Health and University of Arizona, Tucson, AZ, Mentor: Travis Wheeler Applied intersectional fairness framework for evaluation of clinical machine learning models through the <i>All of Us</i> research workbench.
Jan. – Aug. 2023	Graduate Research Assistant (Rotation), Computational and Experimental Neuroscience Laboratory (CENL), University of Arizona, Tucson, AZ, Mentor: Jean-Marc Fellous Worked on EEG signal processing for detection of specific “spindles” indicating communication between thalamus and cortex during sleep.
Jan. 2023 – Present	Instructor and Mentor , Data Warriors Program, University of Arizona, Tucson, AZ, Mentor: Teshia Solomon Developed and implemented training curriculum on computing and topics in health informatics, benchmarks for mentee progress, and overall study plan for the training program
Oct. 2023 – Present	Data Carpentry Instructor , University of Arizona, Tucson, AZ Certified instructor to develop and teach workshops on fundamental data science skills.

PRODUCTS

Conference Presentations & Abstracts

- Soulignie, N., & Subbian, V. Phenotyping Depressive Disorders using the *All of Us* Research Program. 2024 Annual American Medical Informatics Conference (AMIA) Symposium, Nov. 9-13, 2024, San Francisco, CA.
- Soulignie, N., Yadav, S., & Subbian, V. Characterization of Traumatic Brain Injury in the *All of Us* Research Data. *All of Us* Researchers Convention (Virtual), April 3-4, 2024.
- Soulignie, N. Language Lifeline. 2022 Design of Medical Devices Conference, University of Minnesota, MN, April 3-4, 2024.

Manuscripts & Publications

- Soulignie, N., & Subbian, V. Advancing health equity through multi-level fairness in clinical machine learning, working manuscript, to be submitted in 2024

Software Products

- **Language Lifeline**, University of Illinois at Urbana-Champaign, Urbana, IL, 2022: An Android application for nurses, doctors, and other medical practitioners that permits effective communication between patients and the provider. Application comes with companion desktop application that allows for customization of languages and phrases available on the Language Lifeline app.
- **Pet Playdate Finder**, Illinois State University, Normal, IL, 2020. An Android social media application for pet owners to create their own profile, connect with other nearby pet owners, and schedule activities for their pets.

HONORS & AWARDS

- 2024 ***All of Us* Data Fellowship**, University of Arizona, Tucson, AZ
- 2022 **Gallagher, Roger W. Engineering Scholarship**, University of Arizona, Tucson, AZ
- 2022 **Finalist – Design of Medical Devices Conference**, University of Minnesota, Minneapolis, MN
