

Bioinformatics graduate student with a strong background in neuroscience, neurodiagnostics, and applied biomedical research. Experienced in implementing machine learning models, building and maintaining biomedical data analysis pipelines, and analyzing complex biological systems to support research and clinical insights. Known for strong analytical reasoning, root cause analysis, and effective problem-solving in fast-paced environments.

Relevant Work Experience

Sept 2025 – Present	<b>Graduate Student Researcher</b> , University of Nebraska Omaha – Omaha, NE Working under the direction of Dr. Dario Gherzi <ul style="list-style-type: none"><li>Develop methods for spatial transformation and registration of heterogeneous CT scans, enabling alignment of individual patient images into a shared reference space.</li><li>Build and maintain Python-based preprocessing and analysis pipelines for medical imaging data, including normalization, spatial harmonization, and quality assessment.</li><li>Conduct computational analysis of clinical CT imaging data to support imaging-derived biomarker development and downstream translational research applications.</li><li>Design standardized, reproducible preprocessing workflows to improve data consistency, quality control, and analytical reliability across imaging datasets.</li></ul>
Nov 2022 – Dec 2024	<b>MEG Technologist and Research Coordinator</b> , Nebraska Medicine/UNMC – Omaha, NE <ul style="list-style-type: none"><li>Supported database-driven biomedical research for studies involving Alzheimer’s disease, epilepsy, and sleep disorders through structured data cleaning, transcription, and ETL-style workflows for multimodal datasets, including actigraphy-based sleep metrics.</li><li>Performed high-quality clinical and research MEG and 64-channel EEG acquisitions for epilepsy and brain tumor patients in a hospital setting, ensuring data integrity and protocol compliance.</li><li>Conducted participant-facing research activities, including informational interviews, informed consent discussions, and administration of cognitive assessments in accordance with IRB-approved protocols.</li><li>Initiated and drafted laboratory protocols, collaborating with senior staff to refine and implement acquisition procedures, participant preparation, and lab workflows; assisted with training and onboarding of new hires and research staff.</li><li>Managed IRB protocol submissions, amendments, and regulatory documentation through institutional Research Support Systems (RSS).</li></ul>

Education

Graduating June 2026	<b>M.S. Biomedical Informatics</b> , UN Omaha – Omaha, NE <ul style="list-style-type: none"><li>Training in data science and machine learning for healthcare analytics, biomedical research, and clinical decision support</li></ul>
Graduated June 2022	<b>B.S. Bioengineering: Biosystems</b> , UC San Diego – La Jolla, CA <ul style="list-style-type: none"><li>Interdisciplinary training in systems-level analysis of biological and engineering processes, with applications in physiology, medicine, and biomedical technologies.</li></ul>

Technical Skills

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| <ul style="list-style-type: none"><li>Python, R (data analysis, scripting)</li><li>NumPy/pandas/Scipy</li><li>Medical Imaging Data (CT, MRI, MEG, EEG)</li><li>Imaging Preprocessing &amp; Harmonization</li></ul> | <ul style="list-style-type: none"><li>Spatial Registration &amp; Transformation</li><li>ETL-Style Data Workflows</li><li>Data Cleaning &amp; Normalization</li><li>Statistical Analysis</li><li>Regulatory Data Compliance</li></ul> | <ul style="list-style-type: none"><li>Machine Learning (Implementation Level)</li><li>Multimodal Data Integration</li><li>Quality Control &amp; Validation</li><li>IRB-Compliant Human Subjects Research</li></ul> |
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