Reid Souchereau

About

Insight-driven, published graduate researcher with a focus in machine learning. Motivated to improve health and safety with novel machine learning algorithms. I am currently applying deep learning time series algorithms to bypass the need for EMGs to measure muscle activity. Pre and post print publications in the areas of deep learning, exoskeletons, IMUs, and biomaterials. Coursework experience in computer vision, statistics, cognitive systems, human computer interaction, neuroscience, and epidemiology. A reliable, creative, and *adaptable* team leader.

Education

The Ohio State University, Columbus, OH – 3.952 GPA

Master of Science, Integrated Systems Engineering, Present

The Ohio State University, Columbus, OH - 3.56 GPA

Bachelor of Science, Biomedical Engineering, May. 2020

Experience

Graduate Research Associate, Spine Research Institute - The Ohio State University.

Feb. 2020 – Present

- Research interest in deep learning solutions for wearable sensing, biomechanics, 3D modeling, health tracking, and medical diagnosis
- Deep learning model development and integration for various applications within spine biomechanical evaluation software with Tensorflow
    - Includes creating data pipelines for model training and evaluation
- Collect, process, and analyze both subject motion capture, IMUs, and various sensors as inputs to spine biomechanical model software
- Statistical analysis of human subject biomechanical data
- Conduct literature reviews, manuscript drafting, proposal drafting, and present publications at research symposiums
- Consult with external companies to assess industrial safety using lab spine biomechanical models and wearable technologies

Senior Capstone Project.

Aug. 2019 – May. 2020

- Developed vehicle swivel seat to allow persons with Parkinson's disease to safely enter and exit car with ease
- Performed a kinematic assessment of sitting and standing from vehicle to determine design requirements
- Create 3D CAD model for crash test validation in ANSYS using NHTSA Standards

IT Student Assistant, The Ohio State University Library IT.

May. 2019 – May. 2020

- Software and network support / computer imaging and installation

Undergraduate Research Assistant, Advanced Ceramics Research Laboratory - The Ohio State University.

Jan. 2018 – Jan. 2019

- Preliminary research on development of an amyloid fiber scalable production process for water treatment and melatonin sensing
- Antibody allergen sensing for research report which was used as part of a joint funding proposal

Personal info

Phone:
614-226-2998

Email:
souchereau.1@osu.edu

Address:
1531 Neil Ave Apt D, Columbus, OH 43201

LinkedIn:
linkedin.com/in/reidsouchereau

Portfolio:
reidsouchereau.org

ResearchGate:
https://www.researchgate.net/profile/Reid_Souchereau

Skills

Python

Technical Writing

Microsoft Office

Adaptability

Research

Critical Thinking

Biomechanics

Statistics