Avani Muchhala

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OBJECTIVE

Seeking full-time opportunities given my experience in computer science, biomedical engineering, and medical imaging research

EDUCATION

B.S.E. in Biomedical Engineering, Case Western Reserve University, Cleveland, OH   May 2022
GPA: 3.81/4.00

RELEVANT COURSEWORK

Algorithms, Data Structures, Biomedical Image Processing, Modeling of Biomedical Systems, Biomedical Signals & Systems, Medical Imaging Fundamentals, Biomedical Instrumentation

EXPERIENCE

Undergraduate Teaching Assistant, Case Western Reserve University   Aug. 2021 – May 2022
- Reinforced programming fundamentals using MATLAB and Arduino and assisted with completing labs during weekly recitations and office hours
- Graded final projects that combined data acquisition, GUI interface, signal processing, and data analysis

SOURCE Undergraduate Research Scholar, Case Western Reserve University   May 2020 – Aug. 2020
- One of 70 applicants to receive funding to conduct summer research
- Constructed a radiomics-based machine learning model to predict treatment response and time to treatment from bowel MRE imaging of pediatric Crohn's disease
- Co-authored an abstract published in *Gastroenterology*

Undergraduate Research Assistant, Case Western Reserve University   Jan. 2019 – Dec. 2021
- Assessed reproducibility and stability of radiomic textural features from MRI images of healthy brain tissue under varying image acquisition parameters
- Applied image pre-processing steps in 3D Slicer and MATLAB machine learning algorithms for medical image analytics used for disease diagnosis and treatment evaluation
- Co-authored a paper published in *Journal of Magnetic Resonance Imaging,* an abstract published in *The American Journal of Gastroenterology,* and an abstract accepted at SPIE Conference 2022

ACTIVITIES

Case Western Nritya – Competitive Classical Indian Dance Team   Sep. 2019 – Present

Global Health Design Collaborative   Sep. 2019 – May 2020
- Developed and documented a prototype for an affordable and durable backpack for vaccine transportation to rural villages in Uganda

LEADERSHIP

Manager of Case Western Nritya Dance Team   May 2020 – May 2021
- Coordinated performances, edited dance videos, and designed our first website to advertise our team

SKILLS

Java, MATLAB, 3D Slicer Software

AWARDS

The Gheorghe and Claudia Mateescu Award for Research in Imaging