CompuMAINE Lab Internships
2021-2022

The CompuMAINE Lab (Computational Modeling, Analysis of Images and Numerical Experiments) is looking for student researchers for computational projects in biomedicine. Our interdisciplinary team is seeking applicants with interests in signal processing, image analysis, database management and statistics. Applicants are expected to be committed to learning necessary skills. Typical CompuMAINE internships are unpaid. However, for more qualified / experienced students, a recently awarded 3-year grant from the National Cancer Institute will fund a subset of student interns. Please submit your application via this form. We will begin reviewing applications immediately.

Sliding-window analysis of two mammograms to identify breast cancer risk.

The CompuMAINE Lab is a computational research lab that explores novel breast cancer early diagnostic methods (which has led to two patents), cell nucleus architecture, regenerative medicine, muscle cell morphogenesis, neuroscience, and astrophysics. Eighty-three percent of the Lab’s publications in peer-reviewed journals include undergraduate or graduate student co-authors. These students majored in biochemistry, biomedical engineering, chemical engineering, computer engineering, computer science, electrical engineering, mathematics, and physics. Our students have gone on to work / study at Stanford University, Yale University, Brown University, Washington University St. Louis School of Medicine, UCSF, Rensselaer Polytechnic Institute, University College London, University of Manchester, Université de Grenoble, Ohio State University, University of Hawaii, Utah State University, Lockheed Martin Aeronautics, Texas Instruments, and Unum. For more information, please see https://umaine.edu/compumaine/

We were recently awarded a 3-year $418K grant from the National Cancer Institute (September 2020). The work is mostly centered on CompuMAINE lab’s work on the computational analyses of mammograms, but we also successfully proposed an extension of this work to breast tissue analyses from biopsies, lumpectomies, and mastectomies, thanks to Karissa Tilbury’s involvement.