

Heather L. Borgard

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Summary

Biomedical Engineering MSc graduate with 5 years of full-time work experience in 3D computer modeling and biomechanical simulation. I have a strong background in computer science and bioengineering and have a passion for interdisciplinary collaborative research.

Technical Skills

3D image rendering and model creation (Amira, Avizo, Blender, Meshlab), Biomechanical computer modeling (ArtiSynth), CAD (Solid Works), Mathematical modeling (MATLAB), Programming languages (C, C#, C++, Java, Python), Statistical analysis (SPSS, R) UI/UX Design (Unity, Unreal Engine 3/4)

Education

Master of Applied Science in Biomedical Engineering

May 2020

University of British Columbia, Canada

Bachelor of Science in Biomedical Engineering

May 2015

Arizona State University, Tempe, AZ

Professional Experience

Bioinformatics Program Manager

Jun. 2020-Present

Research Corporation of University of Hawaii | Honolulu, HI

- Oversees all administrative needs of a large university program that focuses on cancer research
- Manages the budget planning, spending, and reporting of over 9 various grants for the entire Core

Graduate Research Assistant

Sep. 2017- Dec. 2019

University of British Columbia | Vancouver, Canada

- Collaborated with researchers and physicians to predict postoperative functional outcomes following mandibular reconstruction surgery through subject-specific biomechanical simulations of mastication

Labyrinth Nature Walk in VR for Stress Reduction Therapy

Jan. 2018- Apr. 2018

Human Interface Technologies (EECE518) | Vancouver, Canada

- Developed a virtual reality environment using Unity that was targeted to reduce stress and enhance pedestrians' walking experience through a natural, labyrinth meditation

Research Assistant

Nov. 2015- Jul. 2017

Midwestern University | Glendale, AZ

Managed the lab by creating policies and procedures, maintaining resources, and training students. Oversaw multiple research projects and interdisciplinary collaborations

Capstone Project

Aug. 2014 - May 2015

Arizona State University | Tempe, AZ

Universal Bioreactor for Tissue Engineering of Hollow Organs

- Interacted with physicians to construct a bioreactor for tissue engineering of hollow organs, involving extensive research of medical equipment systems, engineering design, and product development