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 medical research and have a passion for interdisciplinary collaboration. My outside interests include visual art, illustration, video game design and development, 3D modeling, and animation so I am seeking a position that will develop these skills.

Technical Skills

3D image rendering and model creation (Amira, Avizo, Blender, Meshlab), Biomechanical computer modeling (ArtiSynth), CAD (Solid Works), Mathematical modeling (MATLAB), Programing 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 research program (over 20 students and researchers) that focuses on cancer detection
- 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