JOSHUA (VALENTINE/VAL) ACKERMAN

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OBJECTIVE

Graduated with a bachelor of science in Mechanical Engineering: seeking a position as a Design Engineer in the field of Creative Design.

EDUCATION

Case Western Reserve University May 2023

- Major: Mechanical Engineering
- Related Course Work: Computer Assisted Design, Strength of Materials, Dynamics, Evolutionary Anatomy, Musculoskeletal Biomechanics, Design and Manufacturing, and Systems/Control (more detail provided under "Relevant Course Work & Specific Skills")

SKILLS & ABILITIES

SOFTWARE

- Proficient in Solidworks (CSWA) and familiar with both Fusion 360 and Onshape
- Experienced in MasterCAM: CNC Path Programming
- Experienced in Microsoft Office Suite: Using excel to perform linear approximations and effectively processing large amounts of data.
- Experience coding in Matlab and Java
- Experience with Photoshop, Inkscape, HTML, and familiar with CSS

RELEVANT COURSE WORK & SPECIFIC SKILLS

- Engineering Design and Fabrication [CAD, Machining (additive and subtractive), Conceptual Design, Circuits, Thermal and Fluid Mechanics, Senior Design Project Courses]
- Mathematical Modeling of Simple and Complicated Systems [Physics, Statics, Dynamics, Calculus, Differential Equations, Control Theory]
- Analysis and Fabrication of Biological Systems, their Structures, and Properties [Musculoskeletal Biomechanics (Muscles as Actuators and Prosthetic/Implant Design), Evolutionary Anatomy]
- Design and Fabrication of Compliant Mechanical Components [Mechanics and Control of Compliant Robotics (Design of compliant grippers as well as the complex molds necessary to cast them)]

CAMPUS ACTIVITIES AND LEADERSHIP

Assistant Director and Social Media Manager 2020-2022
CWRU Film Society

- Assisting with director's duties where able and responsible for upkeep of social media and communication with the student body.

EXPERIENCE

Research/Design 8/29/2022-
CWRU Biologically Inspired Robotics Lab 5/11/2023

- Responsibilities include the analysis of animal morphology and motion to effectively design a biomimetic robotic aardvark forelimb

LINKS

Portfolio Webpage: https://val-a4.github.io./