

JOSHUA Y. KIM

Designer | Maker | Dreamer

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OBJECTIVE

I am a human-centered designer with a focus on medical device innovation. I aim to create innovative solutions that improve the patient experience with healthcare through iterative design research, prototyping, and testing.

AWARDS/GRANTS

“I am an MUSC Innovator” Award
High Innovation High Reward Grant

SKILLS

Research

Ethnographic observation
Framework generation
Journey mapping
Persona generation
Service blueprints
Stakeholder mapping
Storyboarding
User interviews
User testing

Design

3D modeling
ID sketching
Illustrator
InDesign
Photoshop
Story development

Prototyping

Fiberglass & composites
Foam fabrication
Laser cutting
Model making
Painting & finishing
Resin casting
Rotary tools
Silicone molding
Vacuum forming
Woodworking

EDUCATION

Doctor of Medicine

Medical University of South Carolina | College of Medicine

Aug. 2022 - June 2026

Master of Science in Engineering Design Innovation

Northwestern University | McCormick School of Engineering | GPA: 3.89

Sept. 2017 - Dec. 2018

Bachelor of Arts in Biological Sciences

Northwestern University | Weinberg College of Arts and Sciences

Sept. 2013 - June 2017

Segal Design Certificate

Northwestern University | Segal Design Institute

Sept. 2014 - June 2017

EXPERIENCE

Heartbeat Technologies LLC | Co-Founder & CDO

Medical device start-up created within MUSC Department of Surgery
Chief Design Officer of the company, organizing design initiatives
Grant writing, product conceptualization, prototyping, user research
SC Innovates pitch competition first place finish advisor

Dec. 2020 - Present

Medical University of South Carolina | Design Director

Created a human-centered design program at the medical school
Led teams of residents and physicians in innovation projects
Built curriculum, workshops, and lessons for medical students
Created partnerships with other universities such as the Citadel and OSU

Aug. 2019 - June 2022

JetterMed LLC | Co-Founder & CEO

Medical device design, engineering, and prototyping
Business modeling and manufacturing scale-up planning
Managed clinical relations with primary users: doctors, parents, and patients
VentureCat Pitch Competition Semifinalist

Sept. 2017 - Aug. 2019

PROJECTS

The SAVER | Novel CPR Adjunct Device

Co-Investigator for the research and development of the SAVER
Leads and is in charge of innovation-related development decisions
Successfully received grant funding for the project

Dec 2020 - Present

S.A.F.E. Mask | COVID-19 Innovation at MUSC

Led a team of physicians and engineers in HEPA filter mask development
Created an open-source mask system that has been used internationally
Filed 2 provisional patents and for FDA approval as primary inventor
Presented at MUSC's Dept. of Surgery Grand Rounds

April 2020 - May 2020

Medical Design Thesis | Proton Therapy Innovation

Created a couch top system for streamlining patient alignment
Conducted ethnographic research and observation at clinics
Prototyped a high fidelity proof of concept model for patient alignment

April 2018 - Dec. 2018

Product Design | Procter & Gamble

Design research and conduct in-home consumer interviewing
Iterative prototyping in multiple fidelities with user testing
Received IP Award for accomplishment and final project

Sept. 2017 - Dec. 2017

Intellectual Property

U.S. Provisional Patent Application Serial No. 62/993,621 entitled “System and Method for Personal Air Filtration” filed March 23, 2020.

U.S. Provisional Patent Application Serial No. 62/993,624 entitled “Solid Respirator Mask for Rapid Manufacture” filed March 23, 2020.

U.S. Provisional Patent Application Serial No. 63/144,599 entitled “External Vascular Compression Device For Use During Cardiac Arrest” filed February 2, 2021.