

joanna ma

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EXPERIENCE

Research Associate

Orthopaedic Trauma Institute

MAR 2015 – MAR 2016

San Francisco, CA

Evaluated novel orthopaedic technologies for medical device companies, surgeons and research institutions to prepare for clinical regulatory submissions and potential clinical use.

- Designed and executed custom ISO standard biomechanical tests for each client to verify mechanical properties of novel medical devices and surgical techniques
- Built testing fixtures with machine shop tools and custom sensors for use in servohydraulic testing machines
- Interviewed patients and orthopaedic surgeons to optimize clinical experience

Community Manager & Designer

Dance4Healing

NOV 2014 - DEC 2015

Sunnyvale, CA

Managed logistics and led outreach for ongoing dance programs for cancer patients. Recruited, scheduled and onboarded patients, dance teachers and filmmakers for weekly in-person and virtual classes.

- Optimized company business model, program and platform through user surveys, financial projections, and research into integrated technologies
- Conceptualized the virtual dance experience with high-fidelity prototypes
- Managed Mailchimp, Eventbrite, and all social media accounts to grow awareness
- Led crowdfunding campaign and raised \$3k for future programs

Interface Designer & Content Associate

Confihealth

JAN 2014 - FEB 2015

Burlingame, CA

Created a unique online shopping and educational experience for first-time parents to discover baby tech products. Collaborated with a small team of developers, designers and content strategists to curate over 300 products and educational articles, including writing original content.

- Designed high-fidelity prototypes and user research study to drive direction for the product and business
- Interviewed parents & physicians to uncover pain points of pregnancy and parenting

R&D Engineer

NanoNerve, Inc

SEPT 2012 - JULY 2013

Berkeley, CA

Worked on technical functions of the company to deliver nano-patterned grafts to market.

- Developed ASTM standard testing setup to demonstrate burst strength of dural grafts
- Performed mechanical benchtop testing in accordance with FDA and ISO 13485 standards to generate verification and validation testing data for clinical regulatory submissions
- Optimized manufacturing process for commercialization
- Collaborated with neurosurgeons, clinicians, regulatory advisors and potential strategic partners to increase visibility and demonstrate benefits of grafts and to successfully deliver products to market

Research Engineer

Icahn School of Medicine at Mount Sinai

AUG 2011 - MAY 2012

New York, NY

Created a mechanical device that induces disc degeneration on a rat tail due to cyclic bending.

- Optimized methods of efficient mechanical loading on a rat tail model
- Performed device functionality and system reliability tests on prototypes for *in vivo* studies

EDUCATION

MS in Bioengineering (focus on Translational Medicine)

University of California, Berkeley and San Francisco

JULY 2013

BE in Biomedical Engineering

The City College of New York

JUNE 2012

SKILLS

HARDWARE

Rapid prototyping tools
(3D printing, laser cutting, silicone cast molding, Arduino, sensors)
Machine shop tools
(mill, drill press, band saw)
Technical drafting
Servohydraulic testing systems
Optotrak Tracking System

SOFTWARE

SolidWorks, MATLAB, LabVIEW, OpenSim, ImageJ
Mailchimp, Eventbrite, Asana, Trello

UX/UI DESIGN

UXPin, InVision, Axure, PowerPoint, Adobe Illustrator

New York EIT Certified #089253
(April 2012)

INTERESTS

FIRST Robotics mentor (Team 4159)
Cake decorating
Rock climbing
Sketchnoting