

TAEHEE LEE

Product development engineer with 4 years experience in medical/biotech device design and development. Seeking innovative projects requiring strong advocacy for patients/users.



RELATED EXPERIENCE

2022
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Present

Emulate, Inc.

Product Development Engineer III

📍 Boston, MA

- Rapid product development in biotech startup environment in collaboration with product management, biologists, and multiple disciplines of engineers
- Responsible and accountable for milestone deliverables as technical lead for design and development of next generation of microfluidic Organ-on-Chip device
- Prototype, refine, evaluate feasibility of, and verify designs
- Initiate, develop, and maintain relationships with suppliers, consultants, and manufacturer to continuously improve design, assembly, and quality

2021
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2022

Meinig School of Biomedical Engineering, Cornell University

Product Development - MEng Student Project

📍 Ithaca, NY

Liquid ventilation system for management of Acute Respiratory Distress Syndrome

- Led engineering team in designing and delivering transportable functional liquid ventilation system prototype
- Created 3D models of components/full system for modeling physical integration
- Guided design efforts and verification with focus on defining needs criteria
- Integrated various designed/selected mechanical, electronic, and sensor components into a functioning system

2017
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2021

Children's Hospital of Philadelphia

Research Technician III

📍 Philadelphia, PA

Lead investigator: A zebrafish model of Friedreich ataxia for drug screening | Screening of random shRNA-expressing library in a cellular model of MELAS

2013
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2016

Medtronic Diabetes

R&D Engineer

📍 Northridge, CA

- Worked in cross-functional teams to ensure medical device designs met product requirements, FDA regulatory guidelines, and international standards
- Identified and defined user needs, design requirements, specifications, and test methodologies and analyzed process/design risks
- Improved communication of patient/physician user needs (VOC) to engineering through direct interaction with clinical sites
- Guided team members on design verification and process validation activities for product development as a technical project lead
- Contributed to bringing validation protocols, quality documentation practices, and GMP into FDA compliance as part of CAPA activities



EDUCATION

2022

Cornell University

M.Eng. in Biomedical Engineering

📍 Ithaca, NY

Related coursework: Project Management, Computer-Aided Engineering, Tissue Engineering, Biofluid Mechanics, Stem Cell Bioengineering, Entrepreneurship, Bioprocess Engineering, Data Science in R

2017

University of Pennsylvania

Certificate in Pre-Health (Pre-Med)

📍 Philadelphia, PA

Related activities: ER/Radiology volunteer, surgeon/physician shadowing

2013

Northwestern University

B.S. in Biomedical Engineering

📍 Evanston, IL

Related coursework: Systems Physiology, Tissue Engineering, Soft Materials (Polymers)

CONTACT

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PROFESSIONAL SKILLS

Project management, verbal and written interpersonal communication, user interviews, integrity, adaptability, independence, primary and secondary research, strong work ethic, task prioritization, implementation, team coordination, diligence, persistent curiosity, broad knowledge base

TECHNICAL SKILLS

Engineering analysis and testing, product design, rapid prototyping (3D printing [SLA, FDM], CNC machining), statistical analysis (Excel, Minitab, R), CAD (SOLIDWORKS, Fusion 360), DFM/A, GD&T, COMSOL, OQ/PQ/IQ, FMEA, molecular biology techniques, MS Project, MATLAB

PUBLICATIONS

10.1021/acscemneuro.0c00323

10.1124/jpet.118.252759