# **Taliyah Huang**

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# Education

Johns Hopkins University

Baltimore, MD 2022 - 2026

B.S. - Biomedical Engineering

Minors - Robotics, Computer science, Entrepreneurship & Management

Current Extracurricular Activities: Chair of the Whiting Engineering Design Center Student Advisory Board; Co-Chair of Marketing at the Hopkins Organization for Programming; Treasurer for the Japanese American Students Association; Zumba Fitness Instructor at the Ralph O'Connor Recreation Center

# **Experience**

#### **Clinical Development Engineering Intern**

June - August 2024

Moon Surgical

- Conducted design validation usability studies with 15 surgeons, including 4 human cadaver labs
- Co-authored 510(k) FDA submission protocol and paperwork for Maestro surgical robotic assistant's advanced feature ScoPilot
- Interviewed 20 clinicians to explore prioritization of future applications of Maestro and ScoPilot
- Developed a unique interactive demo and training game for Maestro's commercial launch
- Shadowed and analyzed laparoscopic procedures at various surgery centers
- Designed and casted a custom gynecologic model for the uterine manipulator project

#### **Biomedical Engineering Design Team Leader**

January 2024 - Present

Johns Hopkins Biomedical Engineering

- Selected to lead a team of undergrad students in developing a device to optimize lung cryobiopsy over the course of one year
- Observed and interviewed clinicians about the lung cryobiopsy procedure at the Johns Hopkins Hospital
- Shadowed minimally-invasive robotic surgery at the Johns Hopkins Bayview Medical Center

# User Interface and Experience Designer

May 2023 - December 2023

Quest2Learn

- Programmed Python-based web application for dermatology education (Derm Discovery)
- Designed an app interface in Figma for lab skills development tool featuring AR and AI (Quest2Learn AR + Lab Co-Pilot)
- Conducted user interviews to understand root problems in laboratory science education

# Biological 3D Modeling and Animation Developer (https://bit.ly/magic-pcr)

August 2022 - January 2023

MagIC Lifescience Inc.

- Created professionally-animated 3D biosimulations for demonstrating the startup company's biotech product
- Led team meetings and planning for animation production

#### Bioengineering Team Summer Intern (https://bit.ly/SIMRsaturn)

June 2022 - August 2022

Stanford Institute of Medicine Research Program, Shriram Center for Bioengineering

- Worked as a high school student team to create a medical device that addresses the issues of emergency allergy medication
- Responsible for CAD, 3D printing, animation, and website development

# **Projects**

#### STEMables - Educational Tech Blocks (https://bit.ly/stemables)

- Rearrangeable 3D-printed blocks to create an infinite number of smart circuit sensor systems
- Mission for visually-impaired and dexterously-challenged kids to learn electronics and programming in a fun, easy, and accessible way

#### CPACE - Assistive Technology for Quadriplegia (http://bit.ly/projectcpace)

- Mission to develop a "robotic arm" assistive device for my best friend with cerebral palsy to use a smartphone
- Redesigned as an affordable way for a person with quadriplegia to use any touchscreen

### Auto Mask - Build for COVID 19 (http://bit.ly/auto-mask)

Inspired thousands during the quarantine by designing a robotic face covering to make mask-wearing more hygienic and comfortable

# **Skills**

- CAD/3D Design/Animation (Onshape/Blender/Solidworks)
- Programming (Python/C++/MATLAB/Java)
- Web Development (HTML/CSS/JS/Wix/Squarespace)
- Electronics Prototyping (Arduino)
- Design Thinking Process (UI/UX)
- Photo/Video Editing (Photoshop/HitFilm/Capcut)
- Foreign Languages (Mandarin/Japanese/Taiwanese)

# **Awards**

A. James Clark Scholar (2022) - \$100,000 merit

JHU Whiting School of Engineering

Charles Schwab Scholarship Award (2022) - \$10,000 merit

Professional BusinessWomen of California

Senior Innovator Award & Innovation Diploma (2022)

Design Tech High School