

# Taliyah Huang

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## Education

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**Johns Hopkins University**  
B.S. - Biomedical Engineering, B.S. - Computer Science  
Minors - Robotics, Computer Integrated Surgery, Entrepreneurship & Management

Baltimore, MD  
2022 - 2026

## Experience

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**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 1.5 years
- Observed the **lon robotic bronchoscope** and **interviewed clinicians** about the lung cryobiopsy procedure at the Johns Hopkins Hospital
- Shadowed and analyzed multiple **minimally-invasive Da Vinci robotic surgeries** 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

## Personal Projects

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**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/projectpace>)

- 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

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**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