

# Maya Sharma

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## EDUCATION

### Johns Hopkins University

May 2026

- BS/MS in Biomedical Engineering, Minor: Computer Science

## EXPERIENCE

### Design Team Leader

February 2024 – Present

#### Johns Hopkins Biomedical Engineering | Baltimore, MD

- Leading an 8-person team, establishing a novel real-time surgical tracking method, using AI, integrating hardware and software components for endoscopic prototypes, integrating multi-modal data to improve surgical precision.
- Collaborated cross-functionally with engineers and clinicians to evaluate prototypes in clinical simulation environments.
- Conducted prototype design, V&V testing, and iteration using diagnostic methods to optimize system performance.

### Software Engineering Intern

May 2025 – August 2025

#### Medtronic | Lafayette, CO

- Developed an end-to-end application automating how sales reps create customized solutions for customers – reducing workflows from weeks to under 15 minutes. Built front- and back-end components using Python & JavaScript.
- Applied weighted prioritization, multi-criteria filtering, and rule-based optimization to deliver scalable, tailored product recommendations, boosting customer engagement and sales.
- Gathered user requirements and collaborated across globally distributed cross-functional regions in the Surgical Unit.
- Conducted competitive testing, providing data-driven insights that informed product positioning and strategic decisions.

### IoT Solutions Engineering Intern

May 2024 – August 2024

#### NTT Data | Fort Worth, TX

- Debugged and optimized client software to resolve battery drain issues in RFID handheld readers, increasing battery life by over 10x from 45 minutes to 8 hours, boosting performance and supporting mission-critical field operations.
- Deployed system for use across 4 clinics & warehouses, facilitating inventory management through use of RFID systems.
- Enhanced Low Level Reader Protocol software, improving communication efficiency between RFID tags and clients.
- Conducted in-depth market research and analysis on ~30 active handheld RFID readers, identifying KPIs and trends for informed strategic recommendations.

### Undergraduate Researcher

January 2023 – August 2024

#### Johns Hopkins HEPIUS Innovation Lab | Baltimore, MD

- Developed advanced computer vision algorithms using Python and AI techniques to detect foreign elements left in the brain post-surgery, reducing post-operation complications.
- Utilized MATLAB to analyze MRI rodent data and calibrate ultrasound propagation models, improving model accuracy, enabling high-fidelity simulations, and accelerating translational research outcomes.

### Software Engineering Intern

July 2022 – August 2022

#### Microsoft | Redmond, WA

- Designed and implemented a functional Wishlist feature for Xbox, focusing on scalability and user interaction.
- Pitched product development ideas to leadership, contributing to decision-making for upcoming device releases.

### Data Analyst Research Intern

July 2021 – November 2021

#### Regeneron | Seattle, WA

- Developed algorithms using IoT sensor data and LiDAR imagery to optimize agricultural resource allocation.
- Created predictive models to enhance efficiency, achieving a 55% reduction in water costs and improving crop yields.
- Awarded “Top 200 Young Scholars in the USA” for presenting this research.

## SELECTED PUBLICATIONS, SPEAKING ENGAGEMENTS, TV APPEARANCES

- Sharma, Maya, et al. *Incorporation of Real-Time Quantitative Force Feedback within a Hydrogel AEEP Benchtop Simulator*. To be presented at the IMSH 2026 Conference
- Sharma, Maya. *Paving: Conversations with Incredible Women Who Are Shaping Our World*. Olympia Publishers, 2021.
- Browd, S., Sharma, M., Sharma, C. *Generational Frameshifts in Technology: Computer Science and Neurosurgery — The VR Use Case*. 2021.
- Forbes: How One Teenager Is Inspiring Young Girls — With Help From Female Leaders Around the World, May 2021
- In Conversation: Appeared on a special 30-minute primetime show about my book Paving on DDI India TV, Mar 2021

## SKILLS

Python, Java, C/C++, MATLAB | Artificial Intelligence, Machine Learning, Deep Learning, NLP | PyTorch, TensorFlow, scikit-learn, Hugging Face | Statistical Modeling, Optimization, Algorithm Design, Data Structures & Algorithms | Distributed Computing, Robotics & Control, Embedded Systems | Biomedical Prototyping, Experimental Design, Technical Writing