

# ABHIJIT SARKAR, PHD

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## Senior Product Manager, Devices (Hardware/Software)

Product Strategy & Roadmaps | Consumer Devices & XR Displays | HW/SW Development | Cross-functional Partnerships

Product leader with **10+ years in consumer hardware**, blending deep technical expertise (**11 patents, 17 publications**) with business strategy to ship market-impacting products. Cross-functional collaborator. Conceived and led productization of **4 visual experience features** for Microsoft Surface used by millions and recognized by press and reviewers. In most recent role, led a global **B2B partnership program**, launching tiered pricing strategy and partner tooling targeting **4x revenue growth** and **94% test-efficiency gains**. **UW Foster MBA Candidate '26**.

## STRENGTHS

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- Product strategy & roadmaps
- Requirements & PRDs (user stories)
- Cross-functional execution (HW/OS/SW/UX)
- Prioritization & tradeoffs (CX/cost/schedule)
- Launch & go-to-market (B2B/B2C)
- Stakeholder management (exec & partners)
- Data-driven decisions (success metrics, Excel/JMP)
- Manufacturing & operational readiness
- Domain: consumer devices, displays, wearable hardware (AR/XR)

## RELEVANT EXPERIENCE

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Portrait Displays, Lynnwood, WA

*April 2024 – November 2025*

### Senior Technical Product Manager

- Owned Calman Ready, a global B2B TV-OEM partnership program; built revenue–cost model defining 47-step project execution plan and a 3-tier pricing model, targeting 4x revenue growth to \$1M+ ARR in two years.
- Identified a partner adoption bottleneck limiting B2B scale; defined and launched SpecCheck, a self-service partner validation tool achieving 75% cost reduction and 94% test-time reduction; generating strong early customer interest and inbound adoption inquiries by a key partner.
- Executed under resource constraints via outsourced software development, driving delivery through PRD-led execution, Figma wireframes, user flows, Python/JSON data contracts, and a modular backend–frontend architecture to support future agility.

Meta, Redmond, WA

*July 2023 – March 2024*

### Senior Optical Engineer, Applied Perception & Image Quality team, Meta (Contingent role)

- Evaluated image quality tradeoffs (distortion, lateral color, MTF, additive contrast) for AR optical systems using perceptual metrics, informing product design decisions and go/no-go tradeoffs in active programs.
- Developed and validated display calibration and correction strategy for the Gen 2 Meta Ray-Ban smart glasses, demonstrating prototype gains; led factory process planning to ensure manufacturability and scalability.

Microsoft Corp, Redmond, WA

*September 2022 – March 2023*

### Principal Color Scientist, HoloLens

- Initiated and led cross-functional collaboration across optics, silicon, software, product management, and external partners to define requirements and assess feasibility of future display and color features for HoloLens.

### Senior Display Engineer, Optics team, HoloLens

*April 2019 – August 2022*

- Defined display image quality **feature architecture and scalable factory calibration strategy** for next-generation AR devices, reducing development time by **50%** and resource needs by **33%** versus prior programs.
- Led factory process design with external partners to deliver a **3x faster, more accurate display metrology solution**, reducing codebase complexity by 65% while improving reliability.
- Drove end-to-end improvements in AR display image quality by prioritizing and integrating luminance, color, and uniformity corrections into production calibration workflows.

### Senior Imaging Science Engineer, Surface Devices

September 2015 - April 2019

- Conceived and delivered **3 major display color features** across the Surface product line, balancing user experience, hardware constraints, and platform scalability; features involved hardware and software implementation and shipped across laptops, tablets, and All-in-One PCs.
- Led end-to-end delivery of a Windows software feature leveraging ambient color sensors, spanning **requirements definition, user experience, algorithm design, calibration strategy, and cross-team integration**.
- Partnered cross-functionally to shape **display color roadmaps, product strategy, and customer-facing messaging** across Surface in the context of broader Windows ecosystem.

### Imaging Science Engineer, Surface Devices

March 2013 - September 2015

- Designed and implemented a factory color calibration process adopted across **all Surface displays**, tightening color specs by **70%** and helping position Surface among the **top-ranked displays** in external reviews
- The demonstrated customer and market impact led to **>\$1M internal investment** in display color quality and influenced long-term Surface display strategy

### Color Scientist, ColorModules Inc. (First Employee)

December 2011 - September 2012

- As first employee at an early-stage beauty-tech startup, **defined core product vision and built proprietary color imaging technology** powering PlumPerfect, a personalized beauty recommendation iPhone app.
- **Led technology due diligence with investors** during Series A fundraising, contributing to a **\$1.2M raise**; demonstrated cross-functional ownership spanning product, technology, and business development.

## PROJECTS

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Strategic Tax Advisor AI Agent (Project page: <https://abhijitsarkar.com/projects/strategic-tax-advisor>) | Building a POC for generating personalized tax strategies for High-Net-Worth (HNW) clients of a CPA firm – starting from client's tax returns, cross-referencing against proprietary Tax Strategy Playbook via RAG and generating tailored recommendations

- **Tech stack:** n8n, Pinecone (for RAG), Google Drive OAuth2 API, OpenAI Embeddings, Claude, ChatGPT
- **Methodologies:** Market size/opportunity analysis, Customer Discovery, POC Prototyping, RAG Architecture Design

## EDUCATION

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**University of Washington** Foster School of Business, Seattle, WA, *Expected Graduation June 2026*

### Hybrid Master of Business Administration (MBA)

- Coursework spanning **product management, strategy**, accounting, economics, finance, marketing, operations, and decision modeling, with emphasis on data-driven business decision-making.
- Worked with early-stage robotics startup on **customer discovery, Ideal Customer Profile, and product strategy**.
- Consulting project with a wealth-management firm on a business case for **AI adoption in accounting practices**.

Polytech' Nantes, **Université de Nantes**, France

### PhD, Applied Automation & Computer Science (focus on color and vision sciences)

- Industry-funded doctoral research (ANRT-CIFRE) resulted in 2 patent applications, 9 peer-reviewed publications, 2 international awards, and new international university collaborations.

Munsell Color Science Laboratory, **Rochester Institute of Technology**, Rochester, NY

### Master of Science, Color Science

- Thesis initiated by new collaboration between MCSL and Intel Corp; resulted in a patent and 2 conference papers.

**Pennsylvania State University**, University Park, PA

### Master of Science, Architectural Engineering (Lighting/Electrical)

- Thesis project evolved into multiple publications and a funded follow-on initiative at RIT, forging industry partnerships with two lighting control companies followed by a state-level grant proposal.

**Jadavpur University**, Kolkata, India

### Bachelor of Engineering, Electrical Engineering