

PRAVIN KUMAR RANA

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 Stockholm, Sweden

EXPERIENCE

Product Owner and Project Manager – XR

Tobii AB

 Aug 2020 – Present

 Stockholm, Sweden

- Lead 12+ engineers across system, hardware, firmware, and algorithm, delivering next-gen ML eye-tracking platform for XR and smart eyewear, now deployed in [Play for Dream MR](#) and [Glasses X](#)
- Owned full product lifecycle of Tobii's first XR dual-camera platform, powering XR development at leading firms including [Meta](#)
- Ensured program success by maintaining roadmap and delivery momentum, coordinating global teams and stakeholders during Program Manager's absence
- Secured 15+ multimillion-SEK programs by tailoring platform capabilities, driving revenue growth and meeting evolving client needs
- Drove 80% client retention through on-scope, on-time delivery, fostering long-term partnerships via strategic planning and engagement
- Shared roadmap progress and strategic updates at company-wide all-hands, aligning global leadership and staff on XR priorities

Senior Algorithm Developer – XR

Tobii AB

 Mar 2016 – Aug 2020

 Stockholm, Sweden

- Oversaw OEM-specific algorithm integration into 7+ commercial headsets, including [HTC Vive Pro Eye](#), [Sony PlayStation VR2](#), and [Pico Neo 3 Pro Eye](#), driving adoption across leading OEMs
- Served 6+ algorithm engineers as Tech Lead and Scrum Master, delivering Tobii's VR eye-tracking platforms with 95% user coverage and early traction for [Tobii VR Dev Kit](#)
- Led development of scalable optical calibration algorithm for the VR platforms, enabling mass production at [top-tier OEMs](#) with defect rates below 50 parts per million
- Bridged engineering, product, and sales to translate client requirements into production-ready solutions, accelerating headset launches across multiple OEMs
- Orchestrated sprints and backlog with Product Owners, leveraging sprint throughput insights to consistently achieve 90% sprint goals and accelerate release cadence

Senior Algorithm Developer – Peripheral Devices

Tobii AB

 Mar 2014 – Feb 2016

 Stockholm, Sweden

- Developed embedded algorithms for [Tobii's IS4 eye-tracking platform](#), deployed in [Dell](#) and [Acer](#) laptops and medical devices including [PRC-Saltillo Accent](#), expanding market adoption
- Built real-time, user-position-aware camera control algorithm, making the IS4 platform [Windows Hello-compliant](#) for secure biometric login
- Co-developed a subpixel-accurate optical calibration solution, achieving 99.8% first-pass mass production yield across 1M+ IS4 units

SUMMARY

Technology professional with 15+ years at the intersection of embedded systems, computer vision, ML, and XR. Delivered integrated hardware-software platforms and led agile cross-functional teams. Architected scalable solutions adopted by global tech leaders like Meta, ByteDance, and Sony. Skilled in shaping product vision, aligning stakeholders, and translating complex challenges into user-centric technologies. Adept at stakeholder navigation, agile execution, and fostering collaboration across technical and business domains. Passionate about advancing innovations that empower users and deliver meaningful impact.

COMPETENCIES

Management

Strategic Prioritization, Stakeholder Engagement, Product Ownership, Project Management, Backlog Coordination, KPI-Driven Decisions, Program Oversight

Leadership

Agile, Scrum, SAFe, Release Planning, Workflow Optimization, Technical Mentorship, Continuous Improvement, Cross-Functional Collaboration

Technical Expertise

Domain: Extended Reality (XR: AR/VR/MR), Machine Learning, Eye Tracking, Computer Vision, Optical Systems, Embedded Systems

Programming: C++, Python

Tools: Git, JIRA, Confluence, Power BI, Microsoft 365

INNOVATIONS

U.S. Patents

Granted Patents: 20

Pending Patents: 4

View Full Portfolio: [Google Patents](#)

Innovation Domains: XR Platforms, Eye Tracking, 3D Imaging, Multiview Video, Optical System

Peer-Reviewed Publications

Journal Articles: 3

Conference Papers: 7

View Full List: [Google Scholar](#)

Research Areas: Multiview Video, Machine Learning, Computer Vision, Depth Estimation

Graduate Researcher – School of Electrical Engineering KTH Royal Institute of Technology

Sep 2008 – Mar 2014 Stockholm, Sweden

- Designed novel 3D scene geometry and rendering algorithms, improving view synthesis quality by up to **4 dB in PSNR** and enriching **Free-viewpoint TV** immersion
- Engineered multiview video and depth processing techniques with Ericsson AB, resulting in 2 U.S. patents, 8 peer-reviewed publications, and input to **MPEG** standards
- Taught image and video processing and information theory, supervised student projects, and evaluated performance across academic levels

EDUCATION

M.Tech in Earth System Science and Technology Indian Institute of Technology

Jul 2006 – Jun 2008 Kharagpur, India

Specialization: Satellite Oceanography

Cumulative GPA: 9.53/10.00

M.Sc. in Physics Ranchi University

Sep 2002 – Jun 2004 Ranchi, India

Specialization: Electronics and Communication

First Class Honours: 71.81%

CERTIFICATIONS

AI Product Manager Specialization IBM, SkillUp

Aug 2025 Coursera

Project Management Specialization Google

Aug 2025 Coursera

Deep Learning Specialization DeepLearning.AI

Mar 2018 Coursera

Certified ScrumMaster (CSM) Scrum Alliance

Aug 2017, Expired: Aug 2019 Stockholm, Sweden

ACHIEVEMENTS



Tobii Star Performer Award

Earned performance-based RSUs for consistently driving high-impact results in Tobii's XR program



Tobii Top IP Contributor

Credited with 18 U.S. patents powering headsets across leading brands, such as Sony, HTC, and ByteDance



Tobii Dragon's Den Finalist

Honored with second place for pitching a novel eye-tracking algorithm in a company-wide challenge



National Scholarship Recipient

Awarded merit-based scholarship by the Government of India for studies at Indian Institute of Technology



India GATE Top Ranker

Ranked 254 out of 4,904 in India's national entrance exam in Physics for Master's programs



University Gold Medalist

Graduated top of class in M.Sc. Physics from Ranchi University, earning highest academic honors



TIME Best Inventions

Eye-tracking work featured in TIME's via **HTC Vive Pro Eye (2019)** and **Pico Neo 2 Eye (2020)**



Public Communicator

Presented on research, emerging tech, and product strategy at 12+ global conferences, Tobii internal tech forums, and company-wide all-hands

LANGUAGES

English



Hindi

