

Immersive Technologies

Enabling businesses to drive maximum value



Customer Experience (CX) is the battlefield for brands. Differentiated CX is core to improving and retaining customer loyalty. Mindtree, with its deep digital expertise, has been at the forefront of helping enterprises deliver enhanced and contextual experiences to their end clients.

User Experience is undergoing a tectonic shift in terms of how customers perceive and interact with the digital world. The shift in perception augmented by AI and interactive technologies like Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality (MR) is driving multisensory and multimodal user experiences. This unleashes new possibilities to transform interactions throughout the customer experience & industry 4.0 touchpoints.

- *Gartner: 100 Million Consumers Will Shop in Augmented Reality Online and In-Store by 2020*.*
- *IDC: Worldwide spending on AR/VR products and services will continue a strong growth throughout the 2017-2022 forecast period, achieving a five-year compound annual growth rate (CAGR) of 69.6%*.*
- *IDC: Online retail showcasing (\$558 million) and industrial maintenance (\$413 million) will nearly overtake augmented reality gaming in 2022*.*

With physical and virtual worlds converging, Mindtree is well-positioned to help clients, rapidly unlock value from their immersive technology business use cases

Where can one use this?



Prototype



Sales & Marketing



Customer Experience



Training



Service & Operations

*Source: <https://www.gartner.com/en/newsroom/press-releases/2019-04-01-gartner-says-100-million-consumers-will-shop-in-augme>
<https://www.idc.com/getdoc.jsp?containerId=prUS44511118>

Which Industries?



Manufacturing



Automotive



Education



Retail



BFSI



Travel & Hospitality



HiTech & Media

Technology Essentials

True immersive experience is an amalgamation of various technologies like AR VR MR, Computer Vision and Artificial Intelligence (AI).

Category	Tools/Activities
3D Content Authoring	Blender or Maya Unity 3D Gimp, Photoshop 3D Modeling UV Unwrapping Shading & Texturing Skinning, rigging Animation Unity shading & texturing Lighting, Baking, Rendering
Game Engine / IDE	Xcode(iOS), SceneKit Android Studio, PyCharm - Python Dev Visual Studio, Sceneform Unity Editor and Unity Engine Compositing VFX Interactions Integrating AI Voice Integration Sound Integration Cloud Integration
Augmented Reality SDK	Vuforia Vuforia Expert capture - AR Instructions Vuforia Studio - Author and publish AR Apps Vuforia Engine - Advanced computer vision, calibrated performance and cross platform Vuforia Chalk - Remote ARCore - Android AR Kit - iOS Hololens Full feature AR App Development Integrating SDK's Platform specific modification Camera Scene Capturing Advanced Scene Processing Display – Rendering Effects Positional and Orientation Tracking Screen flooding Object / Image Tracking
Mobile App Development Frameworks	Native App Development Frameworks: Android SDK iOS SDK Cross Platform Development Frameworks: Xamarin Ionic / Cordova React Native Flutter Appcelerator UI Design Animations API integrations DB handling Plug-in integration Deployment
Hardware Technologies	True Depth camera (iOS) Depth sensing camera Gyroscope and accelerometer BLE Using point cloud for environment understanding and face tracking Device Motion Control Integrating with peripheral devices
Artificial Intelligence (AI) & Computer Vision (CV)	TensorFlow, PyTorch, Keras, TuriCreate, OpenCV, Apple computer vision, Microsoft Vision, Vuforia Model Target Generator Natural Language Processing (NLP) Engines - Microsoft (LUIS), Amazon (Lex, Alexa), Google (Dialogflow), RASA, Mindflow, Salesforce Einstein, SAP Leonardo Training of Models Object detection Face shape detection Edge Detection Model Detection Creation of TF Lite Model and Core ML Conversational Interaction

Immersive Industry Use Cases

	Prototype	Sales & Marketing	Customer Experience	Training	Service & Operations
 Automotive	Digital Twins Collaborative Design Design Review	Digital Catalogues Augmented Marketing Ads Shared AR Based Selling	Virtual Walkthrough Product Customization Augmented User Manuals	Simulation Training Product Training Expert Coaching Facility Equipment Training	Remote Expert Asst Service Manual Instructions Augmented Assembly Instructions Augmented Quality Assurance
 Manufacturing	Digital Twins Collaborative Design Design Review	Digital Catalogues Augmented Marketing Ads	Virtual Walkthrough Augmented User Manuals	Product Training Safety Product Training Expert Capture Facility Equipment Training	Remote Expert Asst Service Manual Instructions Service Inspection Instructions Augmented Quality Assurance
 Retail	Space Planning Store Visualization	In-Store Holographic Display AR Marketing Ads Digital Catalogues	Virtual Product Trials Virtual Shopping Experience DIY Home Décor Augmented Smart Shopping	Store Associate Training Customer Service Simulator Product Usage Training Facility Equipment Training	Inventory Operational Assistance Shipping & Logistics Assistance Picking & Merchandising Planogram Compliance
 Education	Design University Design Facility Center Design Laboratory	Virtual University Tours Digital Brochure / Catalogues	Virtual Learning Experiences - Virtual Classrooms - Virtual Labs Simulations	Training Educators Expert Coaching Virtual Learning Experiences - Internal Staff Facility Equipment Training	Remote Expert Assistance Service Manual Instructions
 BFSI	Design Banking Center Design Facility Center	Shared AR Based Selling Portfolio Management Immersive Conference Experiences	Virtual Banking Services Virtual Trading Augmented Physical Asset information	Employee Training Products & Services Training Advisor/Agent Training	Visual Claims Damage Estimation
 Travel & Hospitality	Design Hotel & Restaurants Design Facility Center Design Airports	Virtual Destination Tour Virtual Airport Tour Virtual Museum	AR/VR Guided Booking AR Check-in & Check-out App AR Navigation Assistance	Ground Crew VR Training Maintenance Training Simulation Based Training	Remote Expert Assistance Service Manual Instructions
 HiTech & Media	Design Facility Centers	AR Marketing Ads Smart Ads	Augmented & Virtual Games Augmented Guided Tours Smart News	Process Training Quality Assurance Training Expert Capture	Remote Expert Assistance Service Manual Instructions



Our Experience

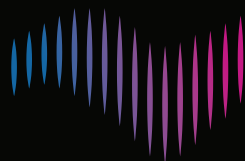
CES Innovation
Award



30+ pilots/implementations
across industries, delivered
at scale



State of the art
experience center



IMMERSIVE AURORA

Where Possibilities Come Alive

An India-based center of excellence, to develop immersive technology experiences that unleashes new possibilities.

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