

Creative and versatile **Extended Reality Engineer**

Augmented Reality | Virtual Reality | Mixed Reality | Game Development | Research & Development

Expertise in interactive spatial computing applications with augmented reality and virtual reality artistry. Enthusiastic creator with entrepreneurship skills in extended reality to solve real time problems by leveraging software development and programming background. Delivered high quality augmented reality projects with designing, planning, and managing the life cycle of product.

Significantly contributed towards research in Gaming, FinTech, Construction and Education industry with emerging technologies like AR/VR/MR.

Technology Skills

Programming Languages: **Core Java | C# | JavaScript | Python | Swift | SQL | XML | JSON | HTML | CSS**
Tools: **Unity 3D | Android Studio | Xcode | Visual Studio | Reality Composer**
Technologies: **Android | iOS | Vuforia | ARKit | ARCore | MRTK | Three.js | Web AR | Geospatial | Computer Vision | UI/UX Design | interaction design**

Professional Experience

DISCOVER FINANCIAL SERVICES, Chicago, IL

2019 - Present

Software Engineer - AR/VR Specialist (Innovation Office)

Pioneered the AR/VR/MR roadmap for the Innovation Office while delivering innovative Augmented Reality prototypes/apps for internal roadshows and exhibitions to showcase customer onboarding and brand illustration.

- Programmed on real-time map data for ATM & Merchant locator in Augmented reality apps making navigation easier.
- Engineered NFC activation prototypes through gamification, facilitating onboarding experiences.
- Formulated Web AR application with multiple APIs, upscaling possibilities of business use cases.
- Led the university research lab projects for AR/VR/MR, introducing multiple business use cases.
- Minimize the cost of outsource projects while establishing the development inhouse.

ICONSENSE LAB, Chicago, IL

2017 - 2019

Research Assistant

Served as the individual researcher for HoloLens Mixed Reality in applied construction engineering. Formulated the pre and post construction engineering research with spatial computing and publishing technical paper on holographic space.

- Designed an internal pipeline tool for mobile augmented reality and HoloLens mixed reality applications.
- Pioneered informative mixed reality HoloLens application with visual features, spatial representation, statistical inference, and indexing high-dimensional features.
- Engineered research-oriented projects for head-mounted displays in Virtual Reality for remote construction accessibility.
- Researched on levels of human-computer interactions with HMDs, enhancing an effect of immersion on human experiences.

THE WALT DISNEY COMPANY. INDIA, Mumbai, MH

2016 - 2017

Unity 3D Software Engineer

Functioned as a team player working with designers, game producers and project managers to deliver high-quality gaming experience in mobile games. Outperformed the monetization model in mobile games with in-app purchases and co-branding.

- Initiated continuous integration, code coverage, crash reports, and analytics frameworks for faster build cycle.
- Crafted the full range of programming tasks, highlighting Game-plays AI, and Sound Engine.
- Built a dynamic cross-platform UI menu system using new Unity UI components.
- Directed the software development on Virtual Reality experiences, manifesting premium movie game simulations.
- Designed and implemented a PVP (Player vs. Player) multiplayer environment for an ICC Pro Cricket 2015.
- Programmed server-side analytic tools and client-side integration for mobile games.

Internship

PTC INC- REALITY LAB, Boston, MA

Fall 2018

Innovation Intern

Championed research and development skills for new products from highly skilled corporate professional researchers.

- Collaborated on Reality Editor a web-based AR and IOT framework, facilitating AR application prototypes.
- Presented various Mixed Reality prototypes to the office of CTO with the guidance of team, showcasing technology innovations.
- Publicized Reality Lab research at LiveWorx 2018 - International digital conference, illustrating next-gen technology to customers.

Additional Related Experience

Held advancing software engineering positions in organizations including **INVENT MEDIA LLC. INDIA as an Augmented Reality Developer, TechTreet IT Systems Pvt. Ltd. As a Mobile application developer.**

- Spearheaded a team of creators and engineers for STEM based AR mobile games. Outperformed as a game developer for Nokia client working on Symbian OS mobile games.

Education

Master's in Information Technology and Management (MSITM), Illinois Institute of Technology, Chicago, IL, Fall 2019
Outstanding Graduate Student Award

Bachelor of Engineering in Information Science (B.E), Visvesvaraya Technological University, INDIA, Fall 2012

Sampling of Projects

DISCOVER FINANCIAL SERVICES, Chicago, IL

Innovation Engineer: An Augmented Reality experience to demonstrate high-quality visualization of the global presence of Discover Bank. Coproduced the AR mobile app project for real-time data capture from Jira and visualize scrum board tickets in spatial AR.

HOLOVISION: [WINNER - INNOVATION CHALLENGE 2017.], Chicago, IL

Technology Head: Research and development using Microsoft HoloLens toolkit, implemented gesture-based interactive framework, enables simulation experience for architects, and help design with modification of holographic objects. Signed and developed a 3D geographic view in Unity 3D developed spatial mapping for detailed representation of real-world surfaces in the environment.

DREAM PLAY - THE GOOGLE DAYDREAM AND IOT BASED VR GAME., Chicago, IL

Research Assistant: Developed a fully immersive simulation game connected to the Arduino Bluetooth IoT devices. Implemented real-time environmental changes with water mist, wind, and heat from IoT devices.

ICC PRO CRICKET, INDIA, Mumbai, MH

Unity Engineer: AAA level game hold the high-level graphic quality with real play animations from cricketers. ICC Pro Cricket 2015 is the Official Game of the ICC Cricket World Cup 2015 features over 150 official players from the 14 teams participating in the ICC Cricket World Cup 2015. Which has AI-based gameplay commentary added great gaming experience for thrilling gameplay and asynchronous PVP multiplayer based on challenges and leaderboard.

Publications and Presentations

Conducted research and authored paper on Immersion into holographic space for enhancing understanding of engineering and architecture design; published paper in i3CE ASCE 2019. The research goal was to streamline the BIM (Building Information Model) visualizations in digital representations, where holograms are mapped into real-world construction sites using spatial mapping and location tracking techniques.