

Ankit Kumar (Agrawal)

Contact Information

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Professional Summary

Creative Technologist & Design Engineer Building Interactive Systems at the Intersection of Engineering and Human Experience
Practice spans AI, robotics, interactive design, and large-scale installation art. I thrive where creativity meets engineering - designing interfaces, architecting ML-driven systems, and leading cross-functional teams. My work demonstrates spatial fluency, technical literacy, and intellectual depth in contemporary research questions essential for advanced design studies.
From founding an indie studio to building enterprise systems, my practice is grounded in experimentation, rigor, and interdisciplinary thinking. I bring a rare blend of creative vision, engineering depth, and strategic thinking, making me a high-value contributor to environments that demand curiosity, innovation, and craft; from research labs to game studios to early-stage startups.

Education

NITTE Meenakshi Institute of Technology, Bangalore

Bachelor of Engineering (Information Science & Engineering)

July 2016 - May 2020

CGPA: 8.52/10.0 (First-Class with Distinction)

Relevant Coursework:

- Machine Learning & Deep Learning Systems
- Computer Vision & Digital Image Processing
- Robotic Systems & Design
- Human-Computer Interaction
- Data Structures & Algorithms
- Statistical Analysis & Pattern Recognition

Academic Achievements:

- First-Class with Distinction
- Research publication in peer-reviewed journal
- National-level robotics competition finalist (4th/7,173 teams)
- Government research grant recipient for COVID-19 detection system

Professional Experience

Amnesea Game Studio, India

Co-Founder & Chief Executive Officer

December 2023 - Present

Leading the creative and strategic direction of an indie game studio with a focus on experiential design and interactive storytelling for titles reaching 5,000+ players. Bootstrapped and scaled operations while managing end-to-end product development.

Key Achievements:

- Strategic Partnerships:** Secured publishing partnerships with Microsoft Xbox and Sony PlayStation
- Industry Recognition:** Selected as Top 16 Asian Studio (Xbox Game Camp Asia) and pitched to global investors
- User Research & Validation:** Exhibited interactive prototypes at IGDC (2024) Asia's largest game conference, gathering qualitative user feedback to refine narrative pacing and game loops
- Cross-Cultural Collaboration:** Managed international partnerships and cultural adaptation for global markets
- Product Development:** Led full-stack game development from concept to market deployment

Microsoft Xbox Studios (Remote)

Studio Accelerator Participant, Xbox Game Camp

March 2024 - June 2024

Selected for intensive design-led accelerator program focusing on game ideation, experience design, production frameworks, and pitching methodologies.

Key Contributions:

- User Experience Research:** Led UXR and production strategy for studio prototype and pitch development
- Market Validation:** Validated market-fit with industry veterans; refined pitch deck used for subsequent global publisher negotiations
- International Collaboration:** Collaborated with gaming organizations across five countries as part of program
- Mentorship:** Received direct mentorship from Xbox Studios experts on design thinking and production methodologies

Brillio LLC, India

Data Engineer → Senior Data Engineer

September 2020 - February 2023

Promoted to Senior Data Engineer in under 2 years (fast-track promotion) due to client impact and technical leadership. Built data infrastructure that shaped how stakeholders interpreted user behavior and operational decisions—an insight that now informs my critical work in digital media.

Technical Leadership:

- Infrastructure Modernization:** Modernized legacy infrastructure for clients like Ruffalo Noel Levitz; optimized ETL pipelines to reduce processing time by 400% (24h to ~5h)
- ML-Driven Analytics:** Led data accuracy initiatives for ML-driven analytics; recognized as "Best Performer" delivering zero-defect data solutions
- System Architecture:** Developed automated ETL/data pipelines, improving efficiency across analytics workflows and supporting ML-driven decision-making
- Client Impact:** Built data infrastructure that directly influenced strategic business decisions and user experience optimization

Centre for Robotics Research, NMIT Bangalore

Research Intern

April 2019 - August 2020

Conducted research in computer vision, digital image/video processing, deep learning, and robotics under faculty supervision (DRDO scientist).

Research Contributions:

- Algorithm Development:** Developed algorithms for video summarization, shot detection, and robot navigation in low-visibility environments
- Hardware Integration:** Built custom robotic mechanisms for ongoing research initiatives and robot navigation systems
- Publication Output:** Co-authored peer-reviewed research publications in medical AI applications
- Technical Innovation:** Applied machine learning techniques to solve real-world robotics challenges

Leadership & Community Engagement

Brillio Toastmasters International

Founding President

July 2022 - February 2023

Led firm's first Toastmasters chapter, mentored 20+ engineers to improve client-facing communication skills. Established organizational structure, managed member development, and facilitated cross-team participation.

Corporate Social Responsibility, Brillio Bringing Smiles

CSR Volunteer

October 2021 - November 2022

Trained 50+ under-skilled NGO staff in digital literacy, simplifying technical concepts to boost employability. Developed training curricula and assessment methodologies for skill development programs.

Anaadyanta Cultural Core Committee, NMIT

Head Studio371-arts and décor

January 2018 - March 2020

Lead Organizer & Production Designer, Anaadyanta Festival

- Managed six-figure-equivalent budget for 30,000+ audience event
 - Conceptualized and engineered immersive art installations
 - Directed 300+ inter-departmental student team for festival production
 - Bridged the gap between engineering teams (structural safety) and art teams (aesthetics) to realize large-scale public works
 - Scaled participation by 150% through innovative engagement strategies
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Research Publications & Academic Contributions

Peer-Reviewed Publications

"Screening of Diabetic Retinopathy and its stages using Deep Neural Networks on Retinal optical Images"

First Author, International Journal of Emerging Trends in Engineering Research (IJETER)

Volume 8, No. 7, July 2020; DOI: <https://doi.org/10.30534/ijeter/2020/155872020>

"Diabetic Retinopathy Detection and Grading using Neural Networks"

Co-Author, Journal of Diabetes Medication & Care

Volume 3, Issue 6-03, 2020, Presented at 5th International Conference on Diabetes and Endocrinology [Journal article link](#)

Research Impact

- Developed novel deep learning approaches for medical image analysis
 - Achieved 97.46% accuracy for diabetic retinopathy detection and 73% accuracy for severity grading
 - Contributed to advancement of AI-driven healthcare diagnostics
 - Research cited in subsequent medical AI studies
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Technical Skills & Competencies

Programming & Development

- Languages:** C, C++, Python, Solidity, T-SQL, LaTeX
- Development Tools:** Visual Studio (Community + Code), Unity Engine, Git, Anaconda, Spyder
- Platforms:** Microsoft Azure, Google Cloud Platform, Google Colab

Machine Learning & AI

- Frameworks:** TensorFlow, Keras, Scikit-Learn, PyTorch
- Libraries:** NumPy, Pandas, OpenCV, SciPy, PyAudioAnalysis
- Specializations:** Deep Learning, Computer Vision, Natural Language Processing
- Architectures:** CNN, RNN, DNN, Transfer Learning

Design & Creative Tools

- Creative Suite:** Adobe Creative Cloud (Photoshop, Illustrator, After Effects, Premiere Pro)
- 3D & Modeling:** Blender, Unity 3D, CAD software
- Prototyping:** Figma, Sketch, Linearlity
- Game Development:** Unity Engine, C# scripting, game design principles

Data & Analytics

- Data Engineering:** ETL pipelines, data warehousing, business intelligence
- Analytics:** Statistical analysis, data visualization, dashboard development
- Databases:** SQL Server, MySQL, NoSQL databases
- Workflow Management:** JIRA, Agile methodologies, project management

Languages

- English:** Fluent (Professional proficiency)
 - Hindi:** Native speaker
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Honors, Awards & Recognition

2025

- Avalanche X Neuranode Game Jam Winner** - \$2,380 prize for innovative game design
- Whalepass blockchain game jam winner** – 500\$ prize for On chain economy centered game design and overall play experience.

2024

- Microsoft Xbox Game Camp Asia** - Selected as Top 16 Asian studios (4 from India)
- India Game Developers Conference (IGDC)** - Featured exhibitor and speaker

2022

- Brillio LLC Excellence Awards:**
 - Special Achievement Award for technical innovation; Group Excellence Award for team leadership
 - Bringing Smiles Star Volunteer for community service

2020

- TEQIP Government Grant** - Innovation Ideas & Research Grant for COVID-19 detection system

2019

- E-Yantra National Robotics Competition** - 4th place finalist out of 7,173 teams (EYRC'18)
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Professional Certifications

Industry Certifications

- **Xbox Studios Game Camp Asia** - Microsoft Xbox (2024)
- **Certified SAFe® 5 Agile Practitioner** - Scaled Agile, Inc. (2022)
- **Deep Learning Specialization** - Coursera (2021)
- **ROBOTC Engineering** - TETRIX & LEGO® MINDSTORMS® (2019)

Technical Competencies

- Advanced Machine Learning and Deep Learning
 - Agile Project Management and Scrum Methodologies
 - Robotics Programming and Control Systems
 - Game Development and Interactive Design
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Military Service

Not Applicable BUT Father served in Indian Air force for 39 years (now retired).

Employment & Educational History - Complete Timeline

2023-Present: Co-Founder & CEO, Amnesea Game Studio

2024 (Mar-Jun): Studio Accelerator Participant, Microsoft Xbox Game Camp

2020-2023: Data Engineer → Senior Data Engineer, Brillio LLC

2019-2020: Research Intern, Centre for Robotics Research, NMIT

2016-2020: Bachelor of Engineering, NITTE Meenakshi Institute of Technology

Gap Analysis: No significant gaps in employment or education history. Continuous progression from undergraduate studies through research internship to professional roles and entrepreneurship.

Extracurricular Activities & Interests

Professional Development

- **Conference Participation:** Regular attendee and speaker at technology and design conferences
- **Mentorship:** Active mentor for junior developers and design students
- **Open Source Contributions:** Contributor to various open-source projects in AI and game development

Creative Pursuits

- **Interactive Art:** Creation of large-scale interactive installations combining technology and art
- **Music Technology:** Development of music-technology interfaces and automated performance systems
- **Travel & Cultural Exchange:** Extensive travel for cultural research and international collaboration

Community Service

- **Digital Literacy Training:** Volunteer educator for underserved communities
 - **STEM Education:** Workshop facilitator for K-12 students in robotics and programming
 - **Environmental Initiatives:** Participant in technology-for-sustainability projects
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Technical Projects & Innovation

KeyBound - Narrative-Driven Puzzle Adventure Game (2023-Present)

Amnesea Game Studio - Interactive Entertainment System

Developed innovative narrative-driven puzzle adventure game combining spatial reasoning with immersive storytelling, showcased at India Game Developers Conference (IGDC) 2023, 2024 and reaching thousands of players across multiple platforms.

Technical Innovation: Designed and implemented complex key-based mechanics that integrate spatial puzzle-solving with narrative progression

Engineering Contributions: Created modular puzzle generation system allowing for scalable content creation

User Experience Research Integration:

- Conducted extensive playtesting sessions at IGDC 2023,24,IGS Pune2024, gathering qualitative feedback from 2000+ players
- Applied UX research methodologies learned during Microsoft Xbox Game Camp to refine narrative pacing
- Implemented A/B testing framework for puzzle difficulty balancing and story engagement optimization
- Achieved positive user feedback scores through iterative design based on player behavior analysis

TimeBound - Time Manipulation Puzzle Platformer (2023-Present)

Amnesea Game Studio - Advanced Game Mechanics System

Designed and developed sophisticated time manipulation puzzle platformer that challenges traditional platformer conventions through innovative temporal mechanics and emotional storytelling integration.

Engineering Contributions: Implemented memory-efficient state management for tracking multiple timeline variations

Interdisciplinary Innovation:

- Integrated emotional storytelling frameworks with complex technical gameplay mechanics
- Applied narrative design principles to create meaningful connections between time mechanics and story progression
- Developed user interface systems that intuitively communicate complex temporal states to players
- Achieved 5,000+ player reach across multiple platforms with strong engagement metrics

AR Watch Interface System (2022-2023)

Augmented Reality Wearable Technology Platform

Developed comprehensive augmented reality interface system for smartwatch applications, focusing on spatial interaction design for next-generation wearable computing experiences.

Technical Innovation:

- Created intuitive AR interface design optimized for limited screen real estate and wearable form factors
- Applied computer vision techniques for real-time hand tracking and gesture interpretation

Engineering Contributions:Developed efficient spatial mapping algorithms for accurate AR object placement in 3D space

Human-Computer Interaction Innovation:Applied human-computer interaction principles to emerging technology platforms and interaction paradigms

Facially - AI-Powered Facial Recognition System (2021-2022)

NFT minting Application model with Ethical Focus

Amidst the Crypto HYPE, the NFT HYPE emerged. I experienced significant gains and losses through NFT trading, leading me to the realization that the house always wins specifically, the NFT project creators, as they are not engaged in a zero-sum game. Thus, the Facially NFT project was conceived.

Facially is a generative AI NFT project allowing users to mint NFTs with unique facial features like eyes, emotions, and hairstyles.

COVID-19 Screening and Detection System (2020)

Government Grant Recipient - TEQIP Innovation Ideas & Research Grant

Envisioned and developed a COVID-19 detection system using patient Chest CT-Scans with Deep Neural Networks and image textural enhancements. Conducted comprehensive statistical analysis on outcomes and model performance.

Technical Innovation:

- Applied advanced computer vision techniques to medical imaging
- Developed custom CNN architectures for diagnostic accuracy
- Implemented statistical validation methodologies
- Received government funding for research contribution

Biped Patrol - Two Wheeled Self Balancing Robot (2020)

Created an autonomous robot that balanced itself and managed objects with an electromagnet in uneven terrains, demonstrating advanced control systems and mechanical engineering integration.

Engineering Contributions:

- Calculated and modeled the system using Euler-Lagrange technique, applied physics and mathemeatics
- Simulated control systems using Octave with pole placement and LQR controller
- Designed and fabricated custom chassis with integrated electronics
- Implemented wireless control systems for remote operation

Mocking Bot - Musical Robot System (2019)

Developed a custom designed Robot with a ML-program that analyzed musical instruments' sounds from audio files and transmitted notes, onsets, and instruments to robotic striking mechanisms, enabling automated musical performance.

Interdisciplinary Innovation:

- Applied Audio Processing, Machine Learning, Instrument Design, and Striking Mechanisms
 - Constructed Instrument Detection model using audio files from 4 different instruments
 - Engineered striking mechanism with 400-millisecond response time and 8.7/10 functioning rate
 - Enabled remote musical performance through robotic automation
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