# MARCH 2024 CONVERTIBLE **PIXELS**



# Contents

#### ABOUT SCHOOL OF GAME DESIGN & DEVELOPMENT

Welcome to the School of Game Design & Development at AAFT, where we are dedicated to nurturing the next generation of game developers and designers. With a focus on comprehensive education, we offer a detailed and immersive curriculum covering all facets of game development.

Our state-of-the-art game design course provide the perfect environment for students to gain handson experience and work on projects. Whether it's designing captivating gameplay mechanics, crafting stunning visuals, or coding intricate game systems, our students have the opportunity to hone their skills gaming experiences.

With access to cutting-edge workstations equipped with industry-standard software, our students have the resources they need to bring their creative visions to life. Our experienced faculty members, who are professionals in the field, guide students every step of the way, providing mentorship and expertise to help them succeed.

As part of the Asian Education Group, our students have the unique opportunity to collaborate with peers from diverse creative disciplines such as animation,



in our top-notch facilities.

At the School of Game Design & Development, we leverage our deep understanding of the gaming industry to provide students with a competitive edge. As one of the leading game design schools in India, our innovative curriculum is designed to cultivate students' talents and shape them into well-rounded professionals.

Our intensive training programs cover everything from the fundamentals of game design to the latest tools and technologies used in the industry. Students learn essential concepts such as game mechanics, level design, storytelling, and game programming, allowing them to create compelling and immersive film, fashion, and more. This interdisciplinary approach provides students with a comprehensive understanding of the media and entertainment industry, preparing them to excel in their careers.

Whether aspiring to become game designers, developers, artists, or programmers, the School of Game Design & Development equips students with the skills, knowledge, and experience needed to thrive in the dynamic and exciting world of game development. Join us and unleash your creativity to shape the future of gaming!



# FROM THE PRESIDENT'S DESK

SANDEEP MARWAH

We are all travellers on the information highway and citizens of the modern society. Information is the most important capital in modern times. Our lives are closely interlinked with the media, the disseminator of information. We are in the business of training personnel in becoming the best informed, responsible and committed professionals with a strong sense of integrity.

At Asian Education Group (AEG) we are conscious of the huge responsibility we carry on our shoulders. We are aware that systematic education, and training and mandatory stellar as well as industry exposure are necessary for preparing students to be excellent professionals in print and electronic journalism, cinema, radio, television and computer centric multimedia fields. We take pride in being the only institute in Asia to have such a huge professional infrastructure of well-equipped studios, films, & libraries and highly qualified and experienced faculty to train our students. Our close links with the Mumbai film industry puts us in an envious position in comparison to the other media schools.

It is no wonder that we draw the highest number of students to our institute and have made a record number of over a thousand films since our inception, a no mean achievement by any standard.

Our Education Group covers, Asian Business School, Asian Academy of Film & Television, School of Mass Communication, School of Fashion and Design, School of Communication, School of Multimedia, School of Advertising, School of Fine Arts, School of Creative Business, creates unique synergies and imparts 360 degree training to students right from ideation to the final marketing and dissemination of the media product.

A balanced study of the academic and practical exposure system creates understanding of various mediums of communication operate; what are the effects of media on the audience and what is the nature of media auxiliaries such as advertising and public relations etc. Asian Education Group offers both graduate and post graduate level courses in management, print, electronic media and film to equip the students with adequate knowledge and skill in their chosen field of creative work.



# FROM THE EXECUTIVE DIRECTOR'S DESK

PROF. (DR.) AJAY KUMAR

Dear Game Design and Development Students,

I hope this message finds you well as we dive into another exciting quarter of learning and creativity. As we continue to navigate the ever-evolving landscape of the game design industry, I wanted to take a moment to reflect on the incredible work you have all accomplished and provide some guidance for the upcoming months.

First and foremost, I want to commend each and every one of you for your dedication and passion for game design. Your commitment to honing your skills, exploring new technologies, and pushing the boundaries of interactive experiences is truly inspiring. The projects you have created have not only showcased your technical prowess but have also captivated audiences and transported them to new worlds. Your talent and imagination are the foundation of our program, and I am honored to be a part of your journey.

As we move forward, I encourage you to remain curious and open-minded. The game design industry is constantly evolving, and it's crucial to stay abreast of the latest trends and emerging technologies. Embrace the opportunities presented by virtual reality, augmented reality, and artificial intelligence, as these fields continue to shape the future of gaming. Seek out new challenges and push yourselves to experiment with innovative mechanics, narrative structures, and gameplay concepts.

Remember, collaboration is key. Game development is a team effort, and the ability to work effectively with others is paramount. Embrace diverse perspectives, communicate openly, and leverage the collective talents of your peers. Participate in group projects, attend game jams, and engage in discussions that challenge your assumptions. By fostering a collaborative spirit, you will not only enhance your own skills but also contribute to the growth and success of your classmates.

Lastly, remember to take care of yourselves. Game design and development can be demanding and time-consuming, but it's important to find balance. Take breaks, engage in activities outside of your coursework, and prioritize self-care. Whether it's going for a walk, playing other games, or spending time with loved ones, these moments of rejuvenation will ultimately enhance your creativity and overall well-being.

I am excited to witness your continued growth and the incredible projects that will emerge from your imagination. Let's make this quarter one of collaboration, innovation, and personal fulfillment. Together, we will shape the future of the game design industry.



# FROM THE DEAN'S DESK

ASHISH GARG

To be a game design and development professional is not only just how much you passionate about playing games of your interest but how to think, design and develop more into plan a strategy, techniques and add more adventure in the game world. There are many types of 2D, 2.5 D and 3D games available on different platforms like PC based, X-Box, Play station, Mobile, Online, Arcade and others. With the latest technology enchantments like Virtual Realty in games you can have real life world experience being a part of the game world. You can interact with the game environment and its objects with your hand gesture like you do in real world.

You may prefer to choose your kind of game design career like as a racing game designer studio, fighting game, role playing game, sports games or many other depending upon your fascination towards the games.

During game design & development learning, everyone should have to understand the job role and task assigned at every stage of game studio pipeline as an essential component of that game design team which makes him a strong foundation in game design industry with a promising career.

Many job roles are available after getting trained and certified in Game Design & Development technology like Game Designer, Level Designer, Game Developer, Game Artist, Game play programmer, Technical Artist Rigging & Animation, Shading & Effects, Game Producer, Game Tester many more depends upon the kind of game studio.

At AAFT School of Animation, students are exposed to different technologies of Game Industry pipeline starting from Game Idea, Design Document to Game Production Management as well as various stages and forms of Game Design & Development in UG & PG programs which are the essential and integral part of game design with the strong foundation on art of game design theory with practical including lots of latest trends in game technologies.

#### FACULTY ARTICLES



Gopal Krishna

# SMART PHONE IS CREATING LARGE MARKET FOR VIDEOGAMES IN INDIA

This study examines the transformative impact of smartphones in the growing video game market in India. Using a comprehensive approach that combines literature review, data analysis, future scoping analysis and case studies, the study reveals the factors driving the growth of smartphone-based video games It highlights a significant change a result in consumer behaviour from traditional gaming systems to mobile devices and video games. It explains the resulting impact on the industry. Highlighting the role of connectivity, the study highlights the importance of high-speed Internet in the increasingly popular video game industry across India.

In conclusion, this study provides a comprehensive understanding of the growth of the Indian video game industry due to the ubiquitous impact of smartphones. Beyond the current impact, the study identifies promising possibilities, such as job creation, foreign exchange contributions through exports, and innovative education and training solutions. As cost-effective training modules, mobile games have great potential to transform skills and knowledge. Structured around four key strategies, the analytical approach contributes to informed discussions and strategic decision-making for stakeholders, policymakers, and researchers in the ever-changing technology and entertainment.



**Amit Gupta** 

# THE DEVELOPMENT AND SIGNIFICANCE OF RESPONSIVE WEB DESIGN

A crucial learning in the field of web development, responsive web design (RWD) changes how websites react and adjust to the wide range of digital devices. This study explores the ins and outs of responsive web design, including its technological underpinnings, best practices, obstacles, and future possibilities. This study attempts to provide a thorough knowledge of RWD's significance in developing the current web by studying its effects on user experience, accessibility, performance, and industry standards.

Overview of Responsive Web Design's History

An overview of the transition from static to responsive layouts in web design.

the rise of mobile devices and the demand for flexible online browsing.

#### FACULTY ARTICLES



**Umesh Chand** 

# Unity gives an error when opened in another version

Unity, a well-known game creation tool, is updated frequently with new features and improvements. This study looks into the reasons behind errors that show up when you open a Unity project that was created with a different version of the programme. Package compatibility, editor layout inconsistencies, asset serialisation, shader and graphics adjustments, and API modifications that might result in compatibility issues are all examined in the study. The results are meant to provide insight into the most effective project management and version transition strategies used in Unity game development.

Version differences are a common consequence of Unity's fast development cycle, which makes moving projects between Unity Editor versions difficult. The importance of comprehending these difficulties is discussed in this part, which also establishes the framework for the examination of the reasons behind version migration errors. The influence on developers and the necessity of methodical techniques to reduce potential problems are emphasised in the introduction.



**Gurvinder Singh** 

#### Is Maya a Lighting and Shading Wizard?

In the field of 3D animation and modeling, Autodesk Maya is a mainstay, enabling creators to create lifelike virtual environments and bring their inventive creations to life. This essay delves into the complex interactions between shading and lighting in Maya, revealing how these elements shape the essence and visual stories of 3D artworks. Maya's extensive toolkit provides a wide range of options, from subtle ambient lighting to the dramatic dance of spotlights.

But even with its strength, Maya has its limitations when it comes to lighting and shading. Complicated sceneries could be a performance hazard, and the historical dependence on CPU rendering has made optimization a priority. This paper explores these shortcomings and suggests ways to help users have a more effective and optimal Maya experience. Third-party rendering engines should be investigated for more photorealistic results; Maya's real-time feedback features should be utilized; and GPU rendering techniques should be included for improved efficiency. The possibility of third-party plugins is investigated for extending Maya's shading effects library, and strategic scene management strategies are also covered to reduce the strain on system resources.

In conclusion, even though Maya has a wide range of lighting and shading options, creating effective and affordable 3D content requires an awareness of its limitations. With insights and suggestions to improve the Maya experience in the always changing world of 3D modeling and animation, this paper acts as a guide for users navigating these limitations.

#### FEATURED STUDENT PROJECT

### Metro Adrift: A Thrilling Isometric Shooter Taking Inspiration from Viewpoint

In this edition of our newsletter, we are thrilled to feature an exceptional student project that combines nostalgia, innovation, and adrenaline-pumping gameplay. Join us as we delve into the captivating world of "Metro Adrift," a remarkable isometric shooting game developed by the talented Abhishek Kumar Yadav.

#### **Unleashing the Neo Geo Spirit**

Inspired by the classic NEO GEO game called Viewpoint, Abhishek Kumar Yadav embarked on a mission to create a modern interpretation of the isometric shooter genre. His passion for retro gaming and his desire to push the boundaries of game design led to the birth of "Metro Adrift." Drawing inspiration from the beloved Viewpoint, Abhishek aimed to capture the essence of the original while introducing his own unique twists.

#### A Dystopian Adventure

"Metro Adrift" takes players on an immersive journey through a dystopian world, where survival depends on quick reflexes and strategic decision-making. Set in a sprawling

metropolis plagued by chaos and destruction, the game's atmospheric environments and haunting soundtrack transport players into a post-apocalyptic realm.

#### **Intense Isometric Firefights**

One of the defining features of "Metro Adrift" is its isometric perspective, which adds a layer of depth and complexity to the gameplay. As players assume control of a skilled protagonist, they navigate through intricate levels, battling hordes of enemies with an impressive arsenal of weapons. The game's meticulously designed isometric mechanics provide a fresh take on the

shooter genre, requiring players to consider

their positioning and utilize cover effectively.





## Dynamic Upgrades and Power-Ups



To enhance the player's experience and provide a sense of progression, "Metro Adrift" incorporates a robust system of upgrades and power-ups. Players can collect resources and discover hidden caches

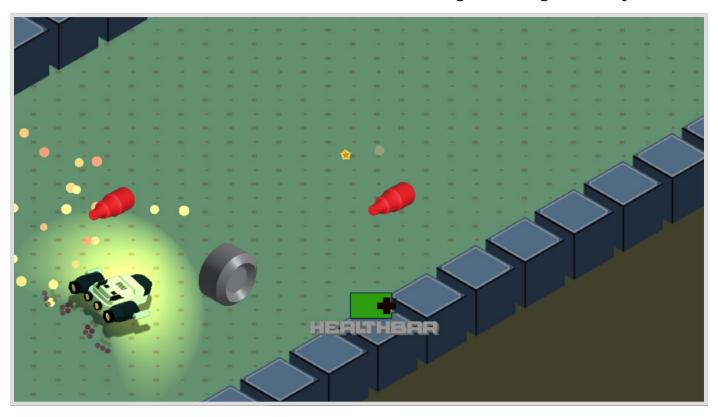
throughout the game world, unlocking new abilities and enhancing their weaponry. From devastating special attacks to enhanced defenses, these upgrades keep the gameplay engaging and reward exploration.

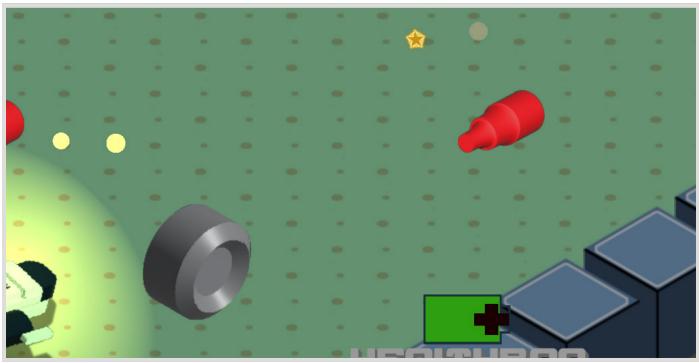
#### **Celebrating Creativity and Talent**

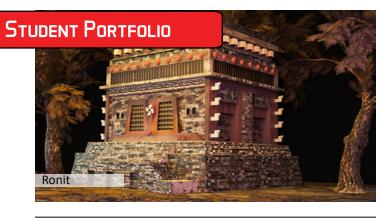
Abhishek Kumar Yadav's "Metro Adrift" exemplifies the ingenuity and skill of our game design and development students. Through tireless dedication and a deep love for the craft, Abhishek has crafted an outstanding project that captures the

essence of classic gaming while infusing it with his own innovative ideas. We are immensely proud of Abhishek's achievements and look forward to witnessing his continued growth as a game designer.

"Metro Adrift" stands as a testament to the boundless creativity and passion present within our game design and development program. Abhishek Kumar Yadav's remarkable project demonstrates the transformative power of inspiration and the ability to reimagine classic games in a modern context. We applaud Abhishek's dedication and talent, and we eagerly anticipate the thrilling experiences he and his fellow students will continue to create as they shape the future of the game design industry.





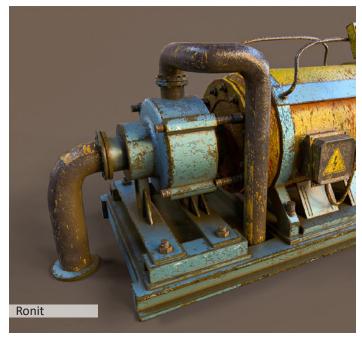


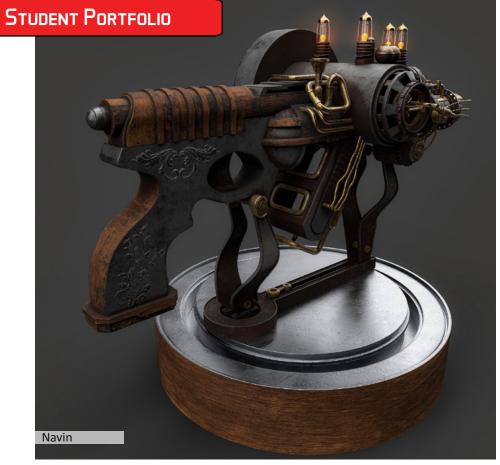












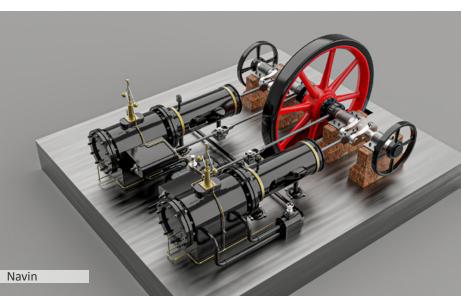


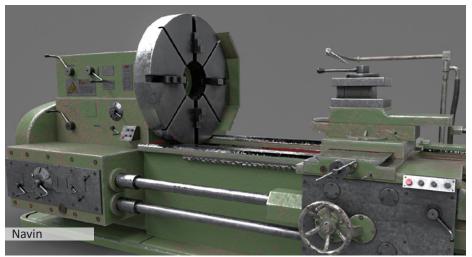










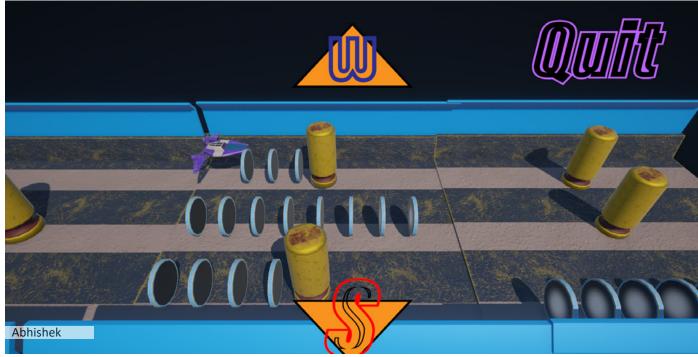






























#### INDUSTRY TRENDS

#### Al and Metaverse - Shaping the Future of Game Design

Welcome to our Industry Trends section, where we explore the latest advancements and emerging concepts that are revolutionizing the game design landscape. In this edition, we delve into two transformative forces that are set to shape the future of gaming: Artificial Intelligence (AI) and the Metaverse. Join us as we uncover how these trends are driving innovation and opening up new possibilities for game designers and developers.



# Al: Powering Intelligent Gaming Experiences:

Artificial Intelligence has become a

game-changer in the industry, offering exciting opportunities to create dynamic and immersive gaming experiences. Al-driven technologies, such as machine learning and procedural generation, enable developers to craft intelligent NPCs, adaptive gameplay systems, and realistic virtual worlds. From advanced enemy behavior to personalized player experiences, Al empowers game designers to create engaging, responsive, and lifelike game environments that evolve based on player interactions.



# Exploring Boundless Creativity and Social Connectivity:

With the Metaverse, game designers can create vast, persistent worlds that offer limitless possibilities for exploration and

creativity. Collaborative game development, user-generated content, and player-driven economies are just a few examples of the exciting avenues that the Metaverse enables. Players can engage with each other in shared virtual spaces, forming communities, participating in events, and even building their own virtual businesses. This level of social connectivity and user agency paves the way for entirely new gaming experiences and business models.



The Rise
of the
Metaverse:
A New Era
of Gaming:
The
Metaverse,

a concept that was once confined to science fiction, is becoming a reality. It refers to a collective virtual shared space where users can interact with a computer-generated

environment and other users in real-time. The Metaverse promises to revolutionize the way we play games, blurring the boundaries between physical and digital realms. It opens up possibilities for persistent, interconnected virtual worlds that span multiple platforms and devices, providing players with immersive, social, and interactive experiences on an unprecedented scale.



#### Ethical Considerations and Challenges:

While the potential of AI and the Metaverse is im-

mense, it is important to address the ethical considerations and challenges they

present. As AI becomes more sophisticated, ethical concerns such as bias, privacy, and the impact on employment should be carefully examined and managed. Similarly, the Metaverse raises questions about digital ownership, identity, and the need for inclusive and safe virtual spaces. As game designers and developers, it is essential to navigate these challenges responsibly and ensure that these technologies benefit all users.

## Pioneering the Future of Game Design:

As game design and development students, you have the opportunity to be at the forefront of these transformative trends. By embracing Al and the Metaverse, you can unlock new avenues for creativity, innovation, and immersive gameplay. Stay informed about the latest advancements, experiment with Al-driven tools and techniques, and explore the potential of the Metaverse as you shape the future of gaming.

Al and the Metaverse are revolutionizing the game design industry, offering new possibilities for immersive experiences, intelligent gameplay, and interconnected virtual worlds. As these trends continue to evolve, it is essential for game designers and developers to stay informed, adapt to new technologies, and embrace the ethical considerations they present. By harnessing the power of Al and exploring the potential of the Metaverse, we can create gaming experiences that captivate, engage, and connect players in ways we have never seen before.







#### INDUSTRY TRENDS

#### Al and Metaverse - Shaping the Future of Game Design

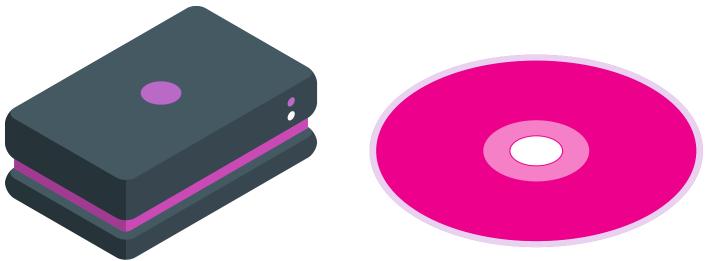
Welcome to our Industry Trends section, where we explore the latest advancements and emerging concepts that are revolutionizing the game design landscape. In this edition, we delve into two transformative forces that are set to shape the future of gaming: Artificial Intelligence (AI) and the Metaverse. Join us as we uncover how these trends are driving innovation and opening up new possibilities for game designers and developers.

#### **Al: Powering Intelligent Gaming Experiences:**

Artificial Intelligence has become a game-changer in the industry, offering exciting opportunities to create dynamic and immersive gaming experiences. Al-driven technologies, such as machine learning and procedural generation, enable developers to craft intelligent NPCs, adaptive gameplay systems, and realistic virtual worlds. From advanced enemy behavior to personalized player experiences, Al empowers game designers to create engaging, responsive, and lifelike game environments that evolve based on player interactions.

#### The Rise of the Metaverse: A New Era of Gaming:

The Metaverse, a concept that was once confined to science fiction, is becoming a reality. It refers to a collective virtual shared space where users can interact with a computer-generated environment and other users in real-time. The Metaverse promises to revolutionize the way we play games, blurring the boundaries between physical and digital realms. It opens up possibilities for persistent, interconnected virtual worlds that span multiple platforms and devices, providing players with immersive, social, and interactive experiences on an unprecedented scale.



#### **Exploring Boundless Creativity and Social Connectivity:**

With the Metaverse, game designers can create vast, persistent worlds that offer limitless possibilities for exploration and creativity. Collaborative game development, user-generated content, and player-driven economies are just a few examples of the exciting avenues that the Metaverse enables. Players can engage with each other in shared virtual spaces, forming communities, participating in events, and even building their own virtual businesses. This level of social connectivity and user agency paves the way for entirely new gaming experiences and business models.

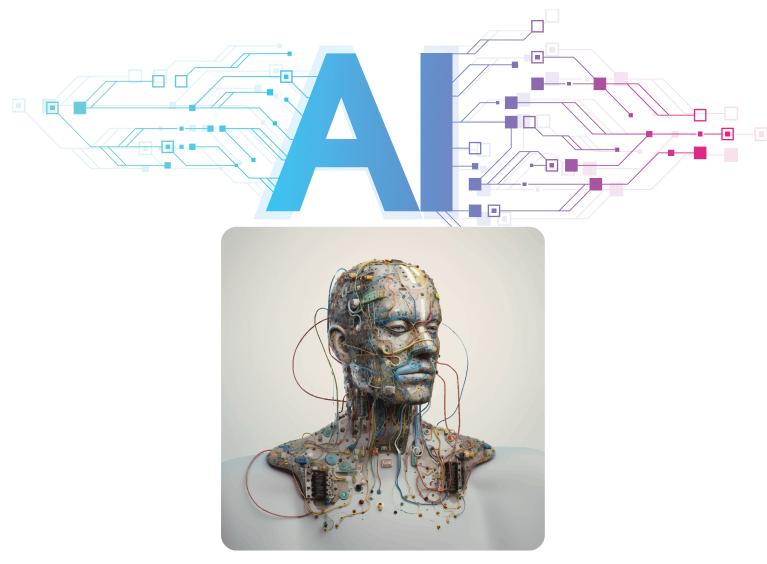
17

#### **Ethical Considerations and Challenges:**

While the potential of AI and the Metaverse is immense, it is important to address the ethical considerations and challenges they present. As AI becomes more sophisticated, ethical concerns such as bias, privacy, and the impact on employment should be carefully examined and managed. Similarly, the Metaverse raises questions about digital ownership, identity, and the need for inclusive and safe virtual spaces. As game designers and developers, it is essential to navigate these challenges responsibly and ensure that these technologies benefit all users.

#### **Pioneering the Future of Game Design:**

As game design and development students, you have the opportunity to be at the forefront of these transformative trends. By embracing AI and the Metaverse, you can unlock new avenues for creativity, innovation, and immersive gameplay. Stay informed about the latest advancements, experiment with AI-driven tools and techniques, and explore the potential of the Metaverse as you shape the future of gaming.

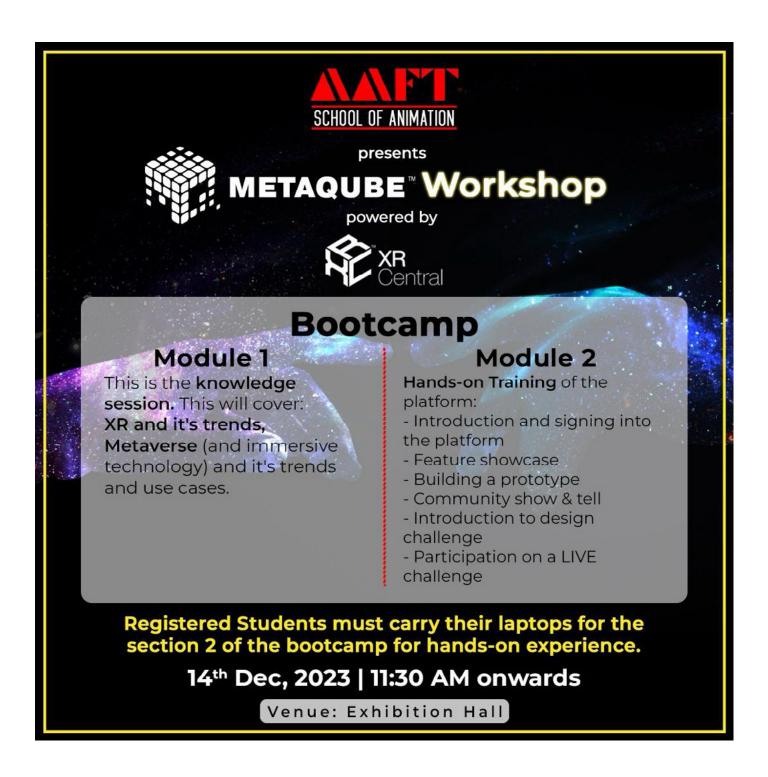


Al and the Metaverse are revolutionizing the game design industry, offering new possibilities for immersive experiences, intelligent gameplay, and interconnected virtual worlds. As these trends continue to evolve, it is essential for game designers and developers to stay informed, adapt to new technologies, and embrace the ethical considerations they present. By harnessing the power of Al and exploring the potential of the Metaverse, we can create gaming experiences that captivate, engage, and connect players in ways we have never seen before.

#### RECENT EVENTS

#### METAQUBE WORKSHOP

This workshop covered XR and Metaverse, and it's trends and use cases. MetaQube Workshop gave hands on training on feature showcase, building a prototype, community show & Introduction to design challenge and Participation on a LIVE challenge



Workshop on **MetaQube** powered by **XR Central** 



Workshop on  ${\bf MetaQube}$  powered by {\bf XR Central}





Workshop on **MetaQube** powered by **XR Central** 







#### INTERNSHIP AND JOB OPPORTUNITIES

# Exciting Summer Internship Offer for Talented Game Design Development Students

In this section, we are thrilled to announce an exclusive internship opportunity for our talented Game Design Development students. We have partnered with the esteemed AAFT School of Animation to provide a two-month summer internship for a deserving student from our Semester 2 cohort. Read on to discover more about this exciting opportunity and how you can apply.

#### **Unlocking Real-World Experience:**

At AAFT School of Game Design & Development, we believe in providing our students with real-world exposure and practical learning opportunities. This summer internship program in collaboration with AAFT School of Animation is designed to offer a hands-on experience in a professional environment, allowing students to apply their skills, gain industry insights, and build a strong foundation for their future careers in game design and development.

#### Partnering with AAFT School of GAME DESIGN

AAFT School of Animation is a renowned institution with a reputation for excellence in the field of animation and related disciplines. Through this partnership, we aim to create a bridge between academia and industry, enabling our students to work alongside experienced professionals and gain invaluable industry exposure.

#### **Internship Details**

#### **Duration:**

The internship will span two months, providing students with ample time to immerse themselves in real-world projects and tasks.

#### **Hands-On Experience:**

Interns will have the opportunity to work on actual game development projects, gaining practical experience in various aspects of the game design and development process.

#### **Mentorship:**

Throughout the internship, students will be guided and mentored by experienced professionals from AAFT School of Animation, who will provide valuable insights, feedback, and support.

#### **Skill Development:**

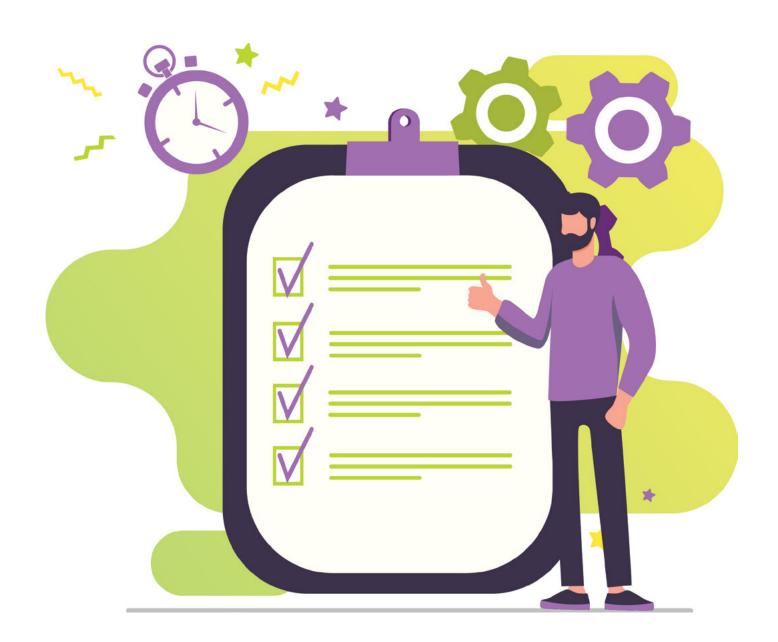
Interns will have the chance to refine their technical skills, collaborate with industry experts, and expand their knowledge of game design and development practices.

#### **Eligibility and Application Process:**

To be eligible for this exciting summer internship opportunity, students must be enrolled in the Semester 2 of the Game Design Development program at AAFT School of Game Design & Development. Further details regarding eligibility criteria, application requirements, and deadlines will be provided in a separate communication. We encourage all eligible students to apply and make the most of this valuable industry experience.

The partnership between AAFT School of Game Design & Development and AAFT School of Animation opens the doors to a thrilling summer internship opportunity for our Game Design Development students. This internship offers a chance to gain hands-on experience, learn from industry professionals, and kick-start their careers in the game design and development industry. We are excited to witness the growth and achievements of the selected intern and look forward to more collaborations that bring invaluable opportunities to our students.

Stay tuned for more internship and job opportunities in our upcoming newsletters!



#### **Q&A CORNER**

#### Do I need to learn programming to design games?

While programming skills can be beneficial, they are not always necessary for game design. Many game development tools and engines provide visual scripting interfaces or drag-and-drop functionality, allowing designers to create games without extensive coding knowledge.

#### What software or tools do game designers use?

Game designers use a variety of software and tools, including game engines such as Unity or Unreal Engine, graphic design software like Photoshop or Illustrator, and prototyping tools like GameMaker or Construct.

#### How important is storytelling in game design?

Storytelling plays a crucial role in game design, as it helps create immersive and engaging experiences for players. A compelling narrative can enhance player motivation, emotional investment, and overall enjoyment of the game.

#### What skills are important for game designers?

Important skills for game designers include creativity, critical thinking, problem-solving, communication, and a deep understanding of player psychology. Additionally, skills in level design, user interface design, and game mechanics balancing are also valuable.

#### Can I create a game on my own?

Yes, it is possible to create a game on your own, especially with the availability of user-friendly game development tools and resources. However, creating a game alone can be challenging, so collaborating with others or joining a development team is often recommended.

## How can I showcase my game design skills to potential employers or collaborators?

Building a portfolio is a great way to showcase your game design skills. Include examples of your work, such as game prototypes, design documents, or completed game projects. Sharing your portfolio online or participating in game jams can also help gain visibility.

#### Are there job opportunities in the gaming industry?

Yes, the gaming industry offers a wide range of job opportunities, including game design, programming, art and animation, sound design, quality assurance, project management, and more. The industry continues to grow, providing numerous career paths for passionate individuals.



# **Boost Your Career With**

BSc in Game Design & Development

MSc in Game Design & Development

Diploma in Unreal Engine

#### **Contact Us:**

Marwah Studios Complex FC-14/15, Sector-16A Noida Film City Uttar Pradesh, India

Designed by: Rama Arora