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Contents

3	Introduction	9	PFE-005: Text-to-Blockout Generator for Unreal Engine	15	PFE-011: Style Transfer System for 3D Assets (Realistic ↔ Stylized)
4	About The Studio	10	PFE-006: Script-to-Branching Narrative Generator for Unreal Engine	16	PFE-012: Image-Driven Conversational Agent Framework for Web
5	PFE-001: Blueprint Validator System for Unreal Engine	11	PFE-007: Prompt-Based Speech-to-Voice Generation System	17	How To Apply
6	PFE-002: AI-Driven Colorization & Style Transfer Tool for Game Art	12	PFE-008: AI-Driven In-Editor Command Assistant for Unreal Engine		
7	PFE-003: Automated Asset Consistency Validator for Unreal Engine	13	PFE-009: AI Explorer for Gameplay & Systems Testing		
8	PFE-004: AI Universal Dynamic Difficulty Adjustment System	14	PFE-010: Automated Performance & Asset Optimization Assistant		

Introduction

Who We Are

Our multidisciplinary team of passionate professionals specializes in IT, 3D art, game design, and media content creation. From mobile games to console titles, we embrace every platform with the same dedication to quality and creativity. As leaders in technology adoption, we leverage tools and frameworks that ensure each project exceeds expectations.

What We Offer

Game Development: Narrative-focused projects designed to engage and resonate with players. Extended Reality (XR) Solutions: Pioneering applications in AR, VR, and MR that expand the boundaries of interaction. Motion Capture Excellence: Full-body, facial, and finger tracking solutions for gaming, films, and virtual production.

Our Philosophy

Innovation, integrity, and collaboration form the core of our studio's ethos. We believe in pushing creative boundaries while fostering an environment where bold ideas thrive.

Join us as we explore uncharted territories in gaming and interactive media, shaping the future one story at a time.



About the Studio

Lanterns studios

At Lanterns studios, we are committed to crafting immersive and responsible gaming experiences that inspire, educate, and entertain. Founded in 2020, our vision bridges the gap between indie creativity and AAA production quality, delivering world-class narrative-driven games and cutting-edge gaming services.

Our Mission

We strive to redefine the gaming landscape by blending storytelling excellence with technical innovation. Our offerings extend beyond game development to include augmented and virtual reality (AR/VR) applications, game remastering and porting, and high-quality motion capture services.



AI-Based Motion Capture Cleanup System

Project ID: PFE-001

Overview:

This project focuses on creating an AI-powered tool that automatically cleans noisy motion capture data for various character rigs with minimal manual work. The system enhances animation workflows by reducing cleanup time and improving consistency across mocap sessions.

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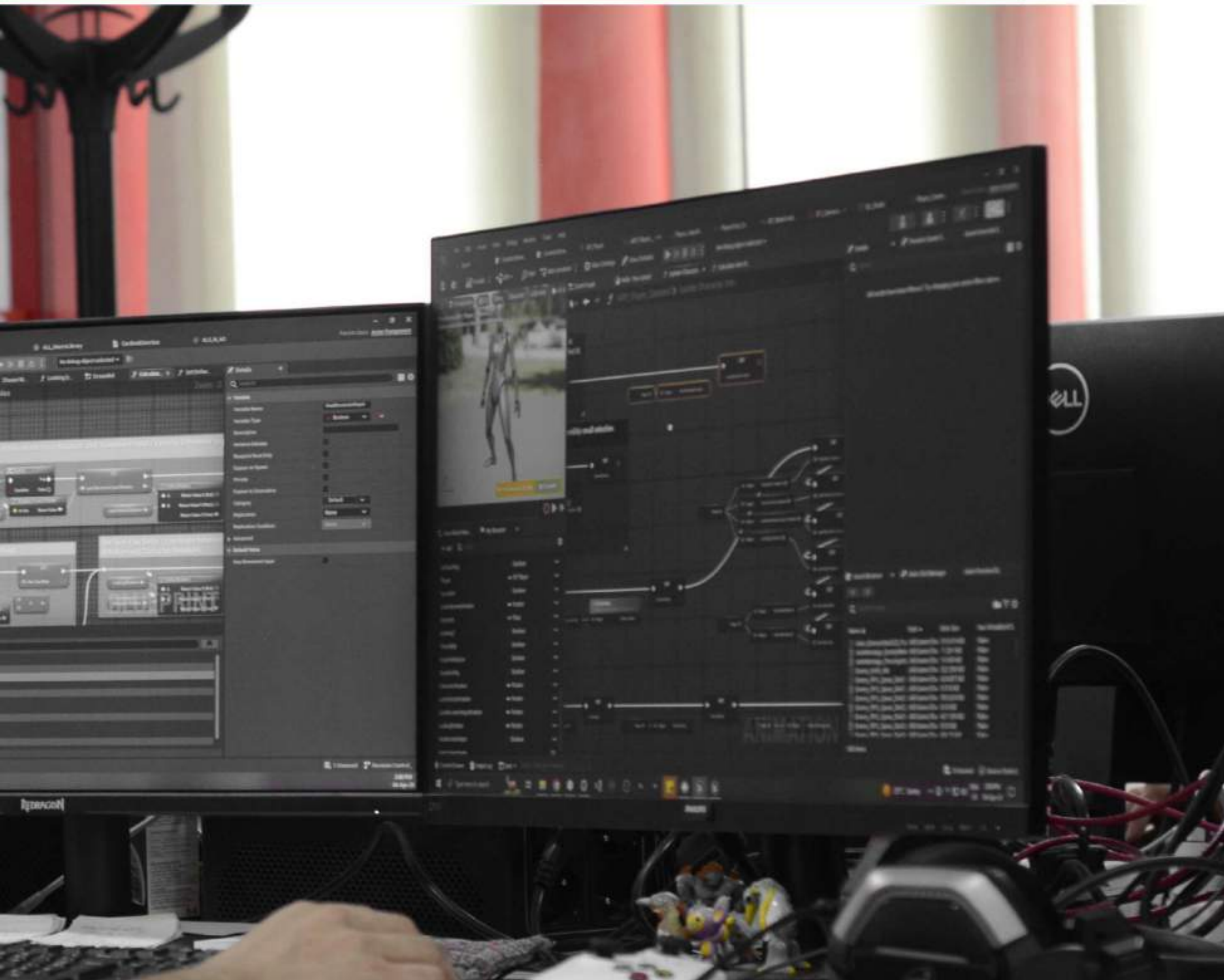
Features:

- * Automatic noise reduction and smooth trajectory reconstruction.
- * Intelligent foot locking and contact point correction.
- * Automatic retargeting to MetaHuman or custom rigs (optional).

Technology and tools:

- * Unreal Engine 5
- * Python
- * Machine Learning APIs
- * Motion Capture Data





AI-Driven Colorization & Style Transfer Tool for Game Art

Project ID: PFE-002

Overview:

This project focuses on creating an AI-powered tool that automatically cleans noisy motion capture data for various character rigs with minimal manual work. The system enhances animation workflows by reducing cleanup time and improving consistency across mocap sessions.

ered tool that automatically cleans noisy motion capture data for various character rigs with minimal manual work. The system enhances animation workflows by reducing cleanup time and improving consistency across mocap sessions.

Features

- * Reference-based colorization.
- * Style transfer from concept art or prompt to the assets.
- * Batch processing for large art libraries.

Technology and tools:

- * Python
- * Stable Diffusion / Image-to-Image Models
- * Photoshop APIs
- * Unreal Engine

Automated Asset Consistency Validator for Unreal Engine

Project ID: PFE-003

Overview:

This project involves developing a tool that scans Unreal Engine projects to detect inconsistencies in assets, ensuring a unified and clean pipeline. The system identifies issues such as incorrect texel density, naming convention violations, wrong material setups, or missing collisions.

Features:

- * Texel density analysis and correction suggestions.
- * Naming and folder structure validation.
- * Detection of missing LODs, collisions, and material mismatches.
- * Automated reporting with recommended fixes.

Technology and features

- * Unreal Engine 5
- * Python
- * Editor Utility Tools
- * Machine Learning APIs





AI Universal Dynamic Difficulty Adjustment System

Project ID: PFE-004

Overview:

This project focuses on designing an AI system that dynamically adjusts game difficulty in real time based on player behavior. The system works across various gameplay genres without requiring specific hardcoded logic.

Features:

- * Player performance monitoring and prediction.
- * Adaptive enemy behavior, puzzle complexity, or pacing.
- * Genre-agnostic difficulty adjustment framework.

Technology and tools:

- * Unreal Engine 5
- * Python
- * Machine Learning Models
- * Gameplay Ability System
- * Custom difficulty profiles and analytics dashboard.

Text-to-Blockout Generator for Unreal Engine

Project ID: PFE-005

Overview:

This project aims to create a tool that transforms text descriptions into 3D blockout environments. Given a script excerpt or location description, the system automatically generates a playable block-out layout in Unreal Engine

Features:

- * Script/text analysis for spatial understanding.
- * Automatic placement of modular pieces and props.
- * Real-time iteration inside Unreal Engine.

Technology And Tools

- * Unreal Engine 5
- * NLP Models
- * Python
- * PCG Framework
- * Custom difficulty profiles and analytics dashboard.





Script-to-Branching Narrative Generator for Unreal Engine

Project ID: PFE-006

Overview:

This project develops an AI tool that analyzes narrative text and converts it into a branching storyline inside Unreal Engine. The system automatically generates Blueprint graphs representing choices, consequences, and flow structure without needing a strict input

Features:

- * Text parsing for dialogue, choices, and consequences.
- * Automatic Blueprint graph generation for branching logic.
- * Debug preview for testing narrative flow.
- * Supports iterative rewriting and versioning.
- * Custom difficulty profiles and analytics dashboard.

Technology And Tools

- * Unreal Engine 5
- * NLP Models
- * Blueprint Automation
- * Python

Prompt-Based Speech-to-Voice Generation System

Project ID: PFE-007

Overview:

This project creates an AI voice generation system allowing users to control vocal traits through text prompts. Emotions, gender, tone, age, and energy can be adjusted automatically. The tool can optionally detect emotional cues from the script context.format.

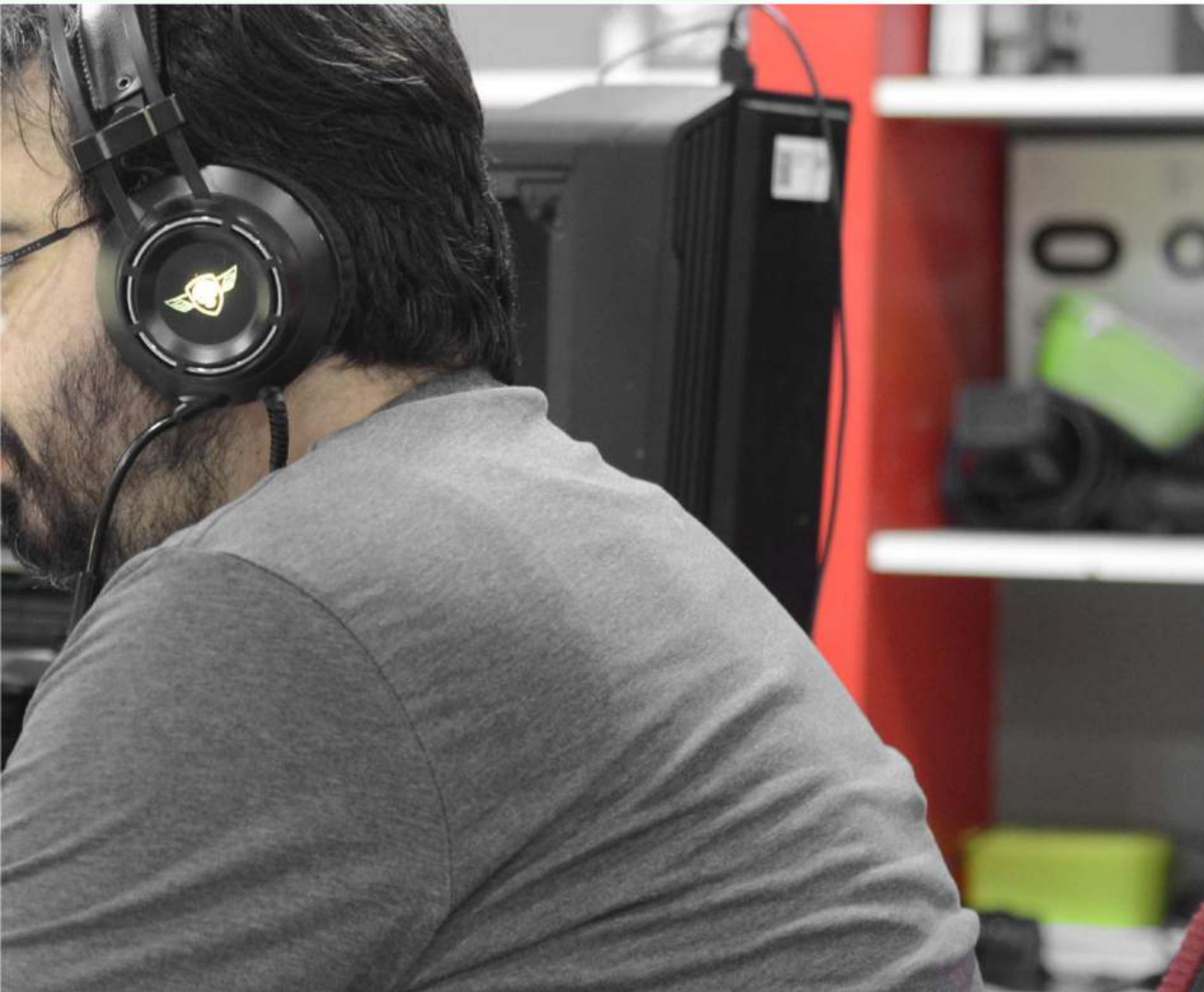
Features:

- * Prompt-based vocal style control.
- * Voice blendspace (age, gender, tone, emotion).
- * Neutral vs emotion-following modes.
- * Batch generation for cutscenes and dialogues.

Technology And Tools

- * Text-to-Speech APIs
- * Python
- * Unreal Engine Integration
- * Audio Processing Tools





AI-Driven In-Editor Command Assistant for Unreal Engine

Project ID: PFE-008

Overview:

This project focuses on building an AI assistant that executes voice or text commands inside Unreal Engine. The system helps developers rapidly prototype by automating repetitive editor tasks.

ontext.format.

Features:

- * Voice or text commands for editor actions.
- * Auto-generation of characters, objectives, props, and behaviors.
- * Scene manipulation (spawn, move, scale, group assets).
- * Fast prototyping workflow integration.

Technology And Tools

- * Unreal Engine 5
- * Python
- * Speech-to-Text APIs
- * Editor Utility Widgets
- * GPT-based Models

AI Explorer for Gameplay & Systems Testing

Project ID: PFE-009

Overview:

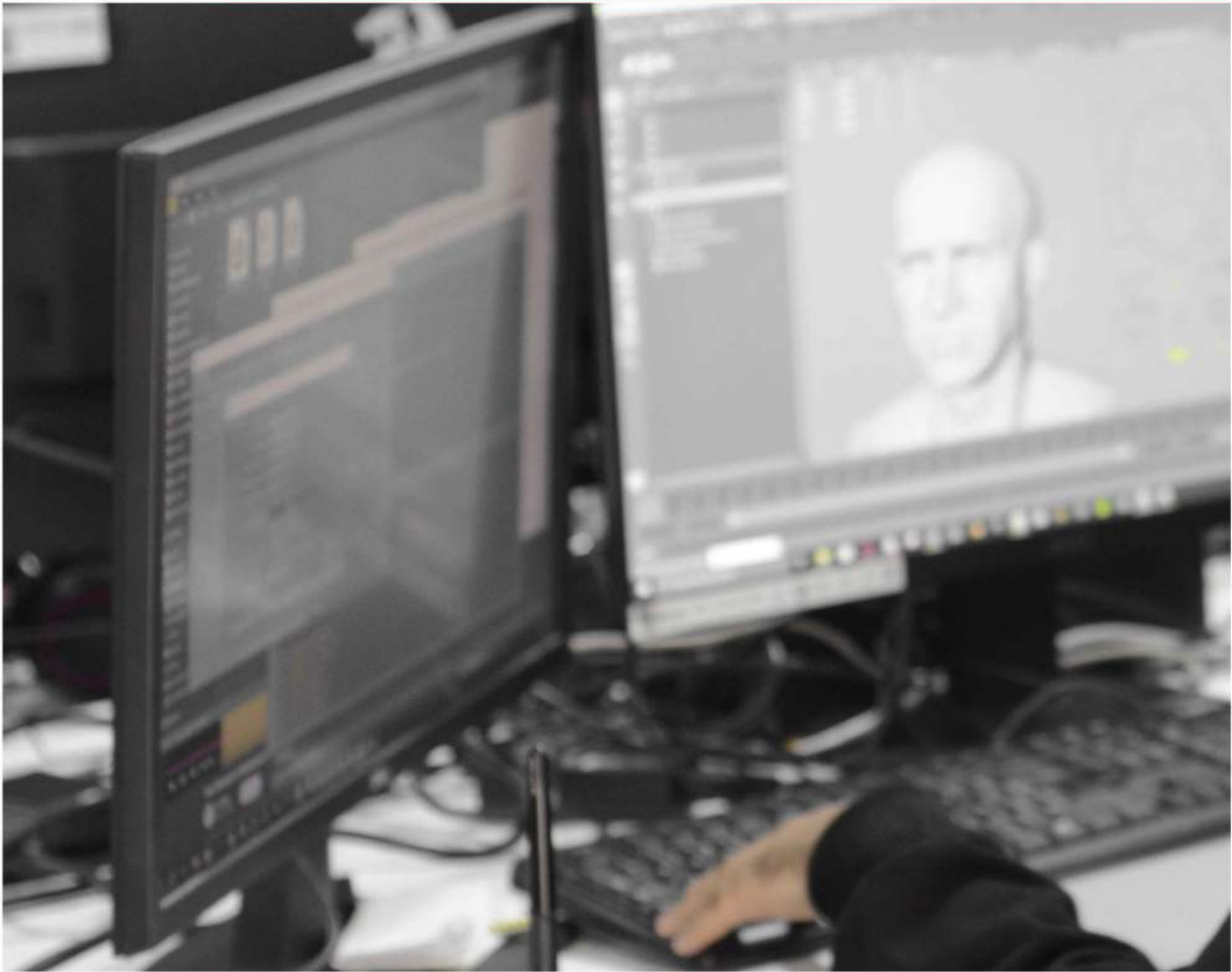
This project involves designing autonomous AI agents that test game levels, systems, and interactions automatically. The agent behaves like a player, exploring the world, triggering events, detecting bugs, and reporting issues.

Features:

- *Autonomous navigation and interaction testing.
- *Detection of missing collisions, stuck areas, dead ends.
- *Encounter balance and difficulty spike analysis.
- *Automated reports with screenshots and logs.

Technology And Tools

- * Unreal Engine 5
- * Reinforcement Learning Models
- * Python
- * Gameplay Debug Tools





Automated Performance & Asset Optimization Assistant

Project ID: PFE-010

Overview:

This project focuses on developing an AI model that analyzes Unreal Engine scenes and detects performance bottlenecks. The tool provides optimization suggestions for LODs, shaders, lighting, meshes, and memory usage.

Features:

- * GPU/CPU cost analysis for scenes.
- * LOD, Nanite, shader, and texture optimization suggestions.
- * Memory usage profiling and warnings.
- * Automatic fix recommendations and optimization scoring.

Technology And Tools

- * Unreal Engine 5
- * Python
- * Profiling Tools
- * ML-based Analysis Models

Style Transfer System for 3D Assets (Realistic ↔ Stylized)

Project ID: PFE-011

Overview:

This project focuses on developing an AI-powered tool that applies style transfer directly to 3D assets. The system converts realistic models into stylized versions (and vice versa) by modifying textures, materials, and shading profiles while preserving topology and gameplay-ready performance. The goal is to help artists rapidly

Features:

- * Automatic conversion between realistic, semi-stylized, and stylized visual styles.
- * Texture and material remapping using AI-driven style transfer.
- * Optional geometry smoothing or detail enhancement modes.
- * Batch processing for large asset libraries.
- * Consistent PBR compliance across outputs.

Technology And Tools

- * Unreal Engine 5
- * Python
- * Texture Generation Models
- * Material Editor Tools
- * Machine Learning APIs



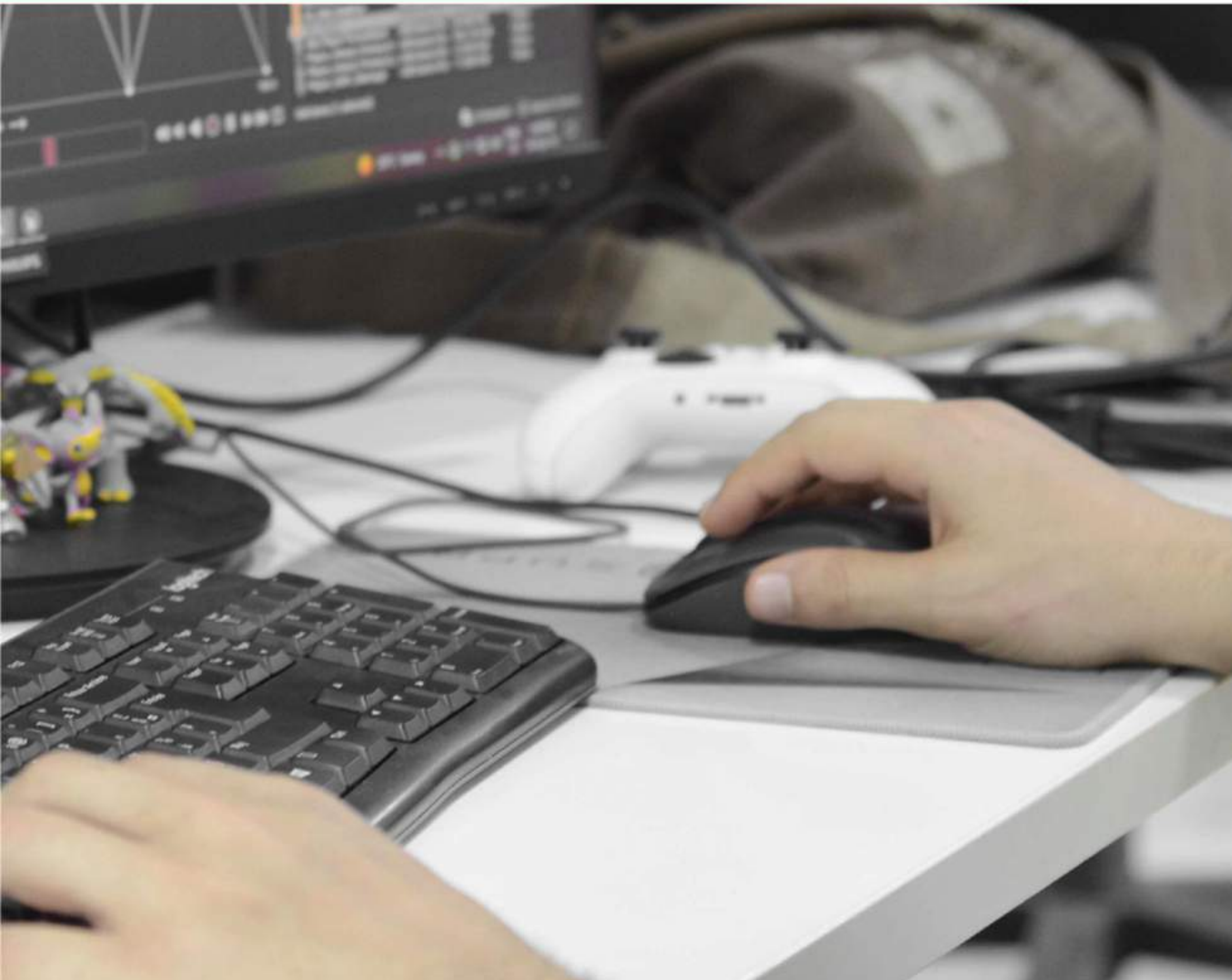


Image-Driven Conversational Agent Framework for Web

Project ID: PFE-012

Overview:

This project focuses on developing a lightweight framework that generates a conversational AI agent from a single 2D image. Designed specifically for web environments, the system creates a responsive on-screen persona capable of real-time interaction through text or speech. It emphasizes fast loading, minimal com-

Features:

- * Generates an interactive AI persona using only a static 2D image.
- * Real-time conversational capabilities (text and optional voice).
- * Lightweight facial reactions or expression cues without 3D rendering.
- * Prompt-based configuration for personality, tone, and behavior.
- * Optimized for browser performance on low-spec devices.
- * Simple integration into existing web applications.

Technology And Tools

- * JavaScript
- * WebAssembly
- * ONNX Runtime Web / TensorFlow.js
- * Speech-to-Text & Text-to-Speech APIs
- * Lightweight Vision Models

How to Apply

To join our exciting projects, send your application to **recruitment@lanterns-studios.com**.

Include the Project ID in the email subject line to ensure your application is directed to the appropriate team.

We look forward to hearing from you!



Are you excited about game development and have innovative ideas to share? At Lanterns Studio, we welcome students from all fields of game development to apply and showcase their creativity. Whether your interests lie in art, programming, design, animation, sound, or innovative technologies, we encourage you to bring your ideas to life.

This is your chance to explore your passion, contribute to the future of interactive media, and make an impact. Don't hesitate to apply and share your vision with us—we're eager to collaborate and support your journey in game development!



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