

# CAM KANIA

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github.com/camkania

## EXPERIENCE

### Pretend Simulations

Founder / Creative Director  
Feb 2024 - Current

### Universal Creative

Sr. Show Programmer & Hiring Manager  
Ride Design & Show Technology Team  
Feb 2022 - Feb 2024

Show Programmer  
Core Studio Team  
Apr 2018 - Feb 2022

### Thinkwell Group

Interactive Associate  
Jun 2017 to Apr 2018

3D Modeler  
Jul 2016 to Jun 2017

3D Modeler - Intern  
Feb 2016 to Jul 2016

### VOA Associates Inc.

Visualization Intern  
May 2015 to Aug 2015

### Creative Direction, Technical Art, Animation

- Scope, staff, & lead XR experience development projects for clients
- Craft experience narratives for attractions & technology demos
- Design 3D assets, motion graphics, interfaces, & shaders for XR apps
- Build animation pipelines for robotic figures & attractions (Python, C++)
- Generate synthetic data for machine learning applications (Unreal)

### Concept Development & Team Leadership

- Led show animation efforts for attractions in the Creative Studio
- Presented interactive experiences & illusion demos to IP Partners
- Managed & mentored a 5-person team of animators & developers
- Communicated concepts through animatics, mock ups, & motion data
- Built & maintained real-time attraction digital twins (Unreal / Perforce)

### Show Programming (Ride & Show Animation)

- Delivered animation profiles & sequences for 9 Universal attractions
- Modeled, rigged, & animated ride systems, robotic figures, & effects
- Developed & maintained onboard VR ride pre-visualization toolkit
- Wrote real-time kinematic analysis & pipeline scripts
- Captured LiDAR scans & architected scan-to-mesh asset pipeline
- Designed haptic animation pipeline & profiles in Unity (C#)

### Interactive Experience Design & Animation

- Developed real-time ride simulation pipelines for 8 rides & shows
- Animated motion profiles for 5 Warner Bros. World attractions
- Built mobile VR walkthrough app for Google's Redwood City campus

### 3D Modeling

- Modeled & rendered production props & show sets for 4 theme parks
- Created & integrated projection system visualizations
- Built VR CAVE environment for multi-user virtual walkthroughs
- Prepared digital assets for 3D printing & fabrication

### Real-time Architectural Visualization

- Modeled & textured assets for architectural visualizations
- Integrated Unreal engine into visualization workflow

## EDUCATION

Georgia Institute of Technology  
(Georgia Tech)

University of North Carolina  
at Chapel Hill (UNC)

MS in Computer Science (Part Time / Remote, Expected Grad. - 2027)

- Specialization in Computational Perception & Robotics

BA in Communication (New Media)

- Minors in Studio Art & Theatrical Design
- Graduated with Distinction

## AWARDS

### Patent

Themed Entertainment Association  
(THEA Awards)

- Ride Vehicle Restraint System - US11345309B2
- 6 THEA Awards for attractions across the globe

## SOFTWARE SKILLS

### 3D / Motion

Maya  
3ds Max  
Houdini  
Blender  
MotionBuilder

### Interactive

Unreal Engine  
Unity  
ARKit / RealityKit  
Git / Perforce  
Microprocessors

### Scripting

Python / Qt / MEL  
GLSL / HLSL  
C++ / Blueprints  
Maxscript  
C#

### Audio / Visual

Premiere Pro  
After Effects  
Photoshop  
Resolve  
Audacity

### Projection

Disguise / OmniCal  
TouchDesigner  
7thSense  
Depence<sup>2</sup>  
QLab