

# Ken Faiman

Senior Technical Artist | Character Rigging | Simulation | Real-Time Avatars | Pipeline

Fullerton, CA | [kfaiman@gmail.com](mailto:kfaiman@gmail.com) | [linkedin.com/in/kfaiman](https://www.linkedin.com/in/kfaiman) | [github.com/sushiHex](https://github.com/sushiHex) | US Citizen

Demo reel: [faiman.com](https://www.faiman.com) | Portfolio: rigging, simulation & modular build breakdown | IMDb

## PROFILE

Technical Artist with 25 years in character rigging, simulation, deformation and the pipelines that ship them: facial capture on *The Matrix* films, a decade of Character FX at DreamWorks, and seven years leading rigging and simulation on Blizzard cinematics.

Most recently at Meta Reality Labs, helped build the next-generation Meta Avatars from the ground up: auto-rigging, autofit deformation, skinning and blueprint systems for a shipped real-time platform, plus the USD tooling and AI-assisted workflows behind them.

## SELECTED HIGHLIGHTS

- ▶ **Avatar systems.** Architected Meta's modular clothing USD kit system (45+ kits); procedural skirt rigs cut setup time 10x.
- ▶ **Pipeline tooling.** Built a C++ FBX-to-USD library with validation and auto-fixing, run on 1M+ vendor and genAI assets.
- ▶ **Team leadership.** Rig/sim show lead for 10+ riggers at Blizzard; Character FX Lead for a 25+ team at DreamWorks.
- ▶ **Simulation R&D.** Pioneered a cloth-based skin solver at DreamWorks, a universal tool for self-collision and contact.
- ▶ **Award-winning capture.** Universal Capture core contributor (VES, Academy Sci-Tech awards); SIGGRAPH 2004 co-author.

## CORE SKILLS

| Rigging & Deformation                                                                                                                                                                                                                                                    | Simulation & Real-Time                                                                                                                                                                                                                | Pipeline & Tools                                                                                                                                                                                                                           |
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| <ul style="list-style-type: none"><li>• Character rigging &amp; auto-rigging</li><li>• Autofit &amp; attribute transfer</li><li>• Skinning, blendshapes, deformer</li><li>• Skeleton standards &amp; retargeting</li><li>• Facial capture &amp; photogrammetry</li></ul> | <ul style="list-style-type: none"><li>• Cloth, hair, skin &amp; feather sim</li><li>• nCloth / nHair / Houdini</li><li>• Runtime animation graphs</li><li>• LODs &amp; engine optimization</li><li>• Unreal Engine 5, Unity</li></ul> | <ul style="list-style-type: none"><li>• Python, PyQt, OpenMaya, C++</li><li>• USD / OpenUSD asset pipelines</li><li>• Node/graph "blueprint" systems</li><li>• Validation &amp; CI automation</li><li>• Agentic AI tooling (MCP)</li></ul> |

## EXPERIENCE

### Senior Technical Artist, GenAI & Avatars | Meta Reality Labs

2022 - 2026 | Meta Avatars and Horizon | Rated "Exceeded Expectations" (2025)

- Built the prototype rigs for the new parametric bodies and their USD structure and joint-naming scheme; helped steer autofit for every wearable, the backbone for clothing and accessories.
- Built auto-rigging, autofit deformation, attribute transfer, skinning and blendshapes in a production real-time engine, plus node/graph "blueprint" systems such as a skeleton-refit blueprint that retargets rigs across body proportions.
- As Technical Lead of the Avatar Hair team, designed the universal hair rig and its FK/IK spline controls; trained 10+ artists who authored 200+ dynamic hairstyles.
- Co-designed the hat and hair interaction system and its USD data specs, covering 38,760 hat-hair combinations.
- Oversaw a team of riggers delivering 100 GenAI fantastical-character rigs, plus their auto-validation tooling.
- Developed a headless OpenUSD render system (10k assets per batch) and ran ML image-safety checks across 200,000+ assets.
- On the Meta Avatars on-call rotation, fixed production incidents, including a hair-LOD failure on 4,664 requests, cut to zero.
- Landed 28 pipeline-node changes with an AI coding assistant, turning weeks of scheduled Engineering into hours.
- Trained Technical Artists in agentic workflows; built an agent-swarm research system adopted by 50+ users.

## Senior Rigging & Simulation Artist II (Lead) | [Blizzard Entertainment, Cinematics](#)

2015 - 2022 | World of Warcraft, StarCraft, Overwatch, Diablo, Hearthstone, Heroes of the Storm, Warcraft Rumble

- Rig/sim show lead for 10+ riggers on Overwatch, World of Warcraft and Diablo cinematics, including the Overwatch 2 Sojourn and Diablo IV release trailers.
- Built complete character rigs (full-body, facial, muscle, clothing, hair) for every Blizzard game franchise.
- Designed the Nucleus-based sim framework and PyQt tools for Stitches, the studio's modular rig-build system.
- Owned rigging and shot simulation on 25+ cinematics; built nCloth/nHair methods and tools adopted across franchises.

## Character FX Lead / Senior Simulation Developer | [DreamWorks Animation](#)

2005 - 2015 | Eight feature films

- Show lead for 25+ Character FX artists; hands-on hero cloth, hair and skin on *How to Train Your Dragon* and *Kung Fu Panda*.
- Pioneered a cloth-based skin solver, a universal tool for self-collision and contact deformation.
- Set up simulation rigs for hero characters, including Stoick (*How to Train Your Dragon*) and Puss (*Puss in Boots*).
- Feather grooming and wing mechanics for the crow in *Puss in Boots*, extending the studio's Houdini feather system.
- Worked with R&D on two physics solvers: a rigid rod solver (*Bee Movie*) and a Houdini dynamic curve solver, later presented at SIGGRAPH.
- Wrote many of the Character FX department's core Python tools.

## Crowd / Motion Capture Technical Director | [Rhythm & Hues Studios](#)

2004 - 2005 | *The Chronicles of Narnia: The Lion, the Witch and the Wardrobe*

- Motion editing and procedural retargeting for the film's autonomous crowd agents, plus motion-capture TD work.
- Wrote the team's core artist tooling in Tcl/Tk.

## Facial Capture / FX Technical Director | [ESC Entertainment](#)

2002 - 2004 | *The Matrix Reloaded*, *The Matrix Revolutions*, *Catwoman*, *The Ladykillers*

- Facial rigging, sculpting, match-move, texture projection and compositing on the Universal Capture facial system.
- Photogrammetry capture of real locations, reconstructed as full CG virtual environments for the films.
- Core contributor to the system (VES Award 2004; Academy Sci-Tech Award 2015; team awards); co-author of "Making of The Superpunch", ACM SIGGRAPH 2004 Sketches.

Earlier: 3D Game Artist, Activision (2000)

## PERSONAL R&D

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- **MotionTerminal** (Unreal Engine 5.8): one Animation Blueprint Template driving four rigs from 158 cm to 210 cm, with a C++ plugin that diffs every rig's AnimGraph per commit.
- **mainframe-mcp** (open source): GPU-RAG knowledge server over MCP, with tests and CI.
- **Agentic and diffusion R&D**: multi-agent orchestration and LoRA fine-tuning on FLUX.

## EDUCATION

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UCLA, B.A. Film, Television & Animation, Honors (2000) | [Gnomon School of Visual Effects](#), Maya