

Alexander Ignatenko

Senior 3D Character Artist & Tech Artist | Medical & Industrial VR / AR Simulation Expert

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SUMMARY

Senior Character & Technical Artist, with 12+ years of experience specializing in high-fidelity VR/AR simulations. Expert in bridging the gap between federal R&D research (BMBF-funded) and high-stakes commercial implementation. Proven track record in developing medically validated character systems and precision-based industrial training modules for global leaders such as **Porsche, Siemens, and Fraunhofer**. Committed to creating socially impactful technology that enhances patient safety and technical excellence. Hey! But it all started with 3D art for games, which I'm still passionate about.

CORE COMPETENCIES

- **Full Character Pipeline for games and 'serious games'**: Modeling, sculpting, 3d scanning and clean up, motion capture, rigging/skinning, blendshapes mimics etc.
- **Medical & Industrial Simulation**: Expertise in creating hyper-realistic, medically validated symptoms and precision interaction systems.
- **VR/AR Technical Art**: Real-time symptom progression systems (edema, cyanosis), procedural materials (SBSAR), and synchronized normal-map transitions.
- **Strategic Collaboration**: Leading technical implementation within research consortia involving universities, clinical centers, and government ministries.

PROFESSIONAL EXPERIENCE

TriCAT GmbH | *Senior Character / Tech Artist & VR Gameplay Designer*

2018 – 2024

1. Scientific R&D & Federal Projects (BMBF / EU)

- **Project EpicSave (2018–2019)**: Lead 3d artist for the award-winning "Land der Ideen" medical VR simulator. Created the flagship "Emotional Child" character with dynamic symptoms (anaphylactic shock), recognized for its "exceptional authenticity" by **Fraunhofer IESE**.
- **Project ViTAWiN (BMBF / EU -funded €2.7 Million) (2019–2022)**: Lead 3d artist for interprofessional VR training for COVID-19 emergency care. Created anatomically correct airway systems and dynamic symptom progression used to train thousands of healthcare workers during the pandemic.
- **Project i:medtasim® (2022-present)**: Scaled research results into a commercial flagship product for disaster medicine (MCI), modeling ultra-realistic injury libraries (burns, amputations) for emergency services and the **Bundeswehr**.
- **Consortium Partners**: Collaborated with **Universitätsklinikum Ulm, DRK (Red Cross), Malteser, Fraunhofer IESE, and Hochschule Hannover** etc.

2. Industrial Precision & Commercial Solutions (2022–2024)

- **Porsche AG**: 3D Characters / Avatars creation, animation. Designed and implemented ultra-precise VR interaction systems and diagnostic equipment simulations for Cayenne models and high-end service centers.
- **TRUMPF & Siemens**: 3D characters / Avatars, animation for technical training environments for heavy machinery and metal 3D printing systems.
- **Infrastructure (SBB & Deutsche Bahn)**: 3D Characters / Avatars creation, animation. Created 1:1 models for firefighter training in the **Gotthard Base Tunnel** and customer service simulations for railway operations.
- **Corporate XR**: Developed 3D 'digital twins' and virtual congress centers for **Bayer AG, Audi, and Bosch**.

Early Career Highlights | *3D Character Artist / Animator*

2010 – 2017

- **New World Interactive**: Character Artist for Title "Insurgency" 2014.

- **FOX 3D:** Hard surface artist for *Natural Selection 2*.
 - **Various Studios:** Quarter Circle Games, IC3D Media, Octagon Interactive (Australia/EU).
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TECHNICAL SKILLS

Tools: 3ds Max, ZBrush, Substance, etc.

Technical: Rigging, Skinning, Animation, Symptoms & Haptics, VR / AR gameplay.

Domain Expertise: Games,, Serious Games, Healthcare, Federal Research (BMBF)

EDUCATION

- **Digital Art School (DAL):** 2006–2009.

Languages: Russian (Native), Ukrainian (Native), German, English.