

Dr. Simone Barbieri

Last updated: February, 2023

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Professional Experience

- 2022 – on **Pipeline Developer** | Ynput, Prague, Czech Republic
Role: Worked on OpenPype pipeline software, mainly on the integration of Unreal Engine.
- 2020 – 2022 **Pipeline Developer** | Cloth Cat Animation, Cardiff, UK
Role: Worked on animation tools and OpenPype pipeline software, mainly on the integration of Blender and Unreal Engine for animated series.
- 2016 – 2020 **Research Engineer** | Cloth Cat Games (formerly Thud Media), Cardiff, UK
Role: Research on curve-skeletons and sketch-based interactions for posing and animation.
- 2014 – 2015 **Research Fellow** | Università degli Studi di Cagliari, Cagliari, Italy
Role: Research on experimental programming language based on spreadsheets.

Education

- 2015 – 2020 **EngD in Digital Media** | Bournemouth University, UK
Thesis: Generation of 3D characters from existing cartoons and a unified pipeline for animation and video games.
- 2012 – 2014 **MSc in Computer Science** | Università degli Studi di Cagliari, Italy
Thesis: Skeleton Editing and Mesh Reconstruction from Skeleton.
- 2009 – 2012 **BSc in Computer Science** | Università degli Studi di Cagliari, Italy

Project Experience

- 2020 – on **OpenPype** | <https://openpype.io>
Open source pipeline for visual effects and animation.
Role: Mainly integration of Blender and Unreal Engine in the pipeline.

Publications

- 2018 **Barbieri, S**, Jiang, T, Cawthorne, B, Xiao, Z, Yang, X. 3D content creation exploiting 2D character animation. *ACM SIGGRAPH 2018 Posters*. doi:[10.1145/3230744.3230769](https://doi.org/10.1145/3230744.3230769).
- 2017 **Barbieri, S**, Cawthorne, B, Xiao, Z, Yang, X. Repurpose 2D Character Animations for a VR Environment using BDH Shape Interpolation. *Next Generation Computer Animation Techniques. AniNex 2017. Lecture Notes in Computer Science*. doi:[10.1007/978-3-319-69487-0_6](https://doi.org/10.1007/978-3-319-69487-0_6).
- 2016 **Barbieri, S**, Garau, N, Hu, W, Xiao, Z, Yang, X. Enhancing character posing by a sketch-based interaction. *ACM SIGGRAPH 2016 Posters*. doi:[10.1145/2945078.2945134](https://doi.org/10.1145/2945078.2945134).

- 2016 **Barbieri, S**, Meloni, P, Usai, F, Spano, LD, Scateni, R. An interactive editor for curve-skeletons: SkeletonLab. *Computers & graphics*. doi:[10.1016/j.cag.2016.08.002](https://doi.org/10.1016/j.cag.2016.08.002).
- 2015 **Barbieri, S**, Meloni, P, Usai, F, Scateni, R. Skeleton Lab: an Interactive Tool to Create, Edit, and Repair Curve-Skeletons. *Smart Tools and Apps for Graphics - Eurographics Italian Chapter Conference*. doi:[10.2312/stag.20151299](https://doi.org/10.2312/stag.20151299).

Skills

Core Competencies

- Unreal Engine Integration of Unreal Engine in the OpenPype pipeline. Development of plugins for support to studio artists.
- Blender Integration of Blender in the OpenPype pipeline. Development of addons for support to studio artists.
- Maya Development of custom scripts for animation support.

Programming Languages

- Python Development of integrations for OpenPype. Scripts for Unreal Engine, Blender and Maya.
- C++ Development of plugins for Unreal Engine.
- C Development of Blender source code.
- C# Development of Unity scripts.
- Qt Development of tools for curve-skeleton editor and sketch-based interaction.
- Lua Basic knowledge for development of extentions for MMORPG games.

Languages

- Italian Native
- English Lived and worked in the UK since 2015 and completed my EngD in a UK university.