Dr. Simone Barbieri

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Professional Experience

2024 – on · **Senior Technical Developer** | JLR, Gaydon, UK
Developing custom plugins, tools and script for different DCCs to optimize artist workflows and enhance the efficiency of JLR's design and production pipelines.

2022 – 2024 · **Pipeline Developer** | Ynput, Prague, Czech Republic (Remote)
Worked on Ayon (formerly OpenPype) pipeline software. Implemented and maintained the integration for Unreal Engine and Blender. Support clients on issues and feature requests.

2020 – 2022 · **Pipeline Developer** | Cloth Cat Animation, Cardiff, UK
Worked in close contact with the animators to support them in the use of tools, implementation of utilities based on their feedback and maintaining the software. Worked on animation tools and Ayon (formerly OpenPype) pipeline software, mainly on the integration of Blender and Unreal Engine.

2016 – 2020 · **Research Engineer** | Cloth Cat Games (formerly Thud Media), Cardiff, UK
Research on curve-skeletons and sketch-based interactions for posing and animation.

2014 – 2015 · **Research Fellow** | Università degli Studi di Cagliari, Cagliari, Italy
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 – 2024 · **Ayon** | https://ynput.io/ayon/ | (formerly OpenPype)
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.

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.

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.

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.

Skills

Core Competencies

Unreal Engine	Integration of Unreal Engine in the Ayon pipeline. Development of plugins for support to studio artists.
Blender	Integration of Blender in the Ayon pipeline. Development of addons for support to studio artists.
Maya	Development of custom plugins and scripts to optimize artist workflows.

Programming Languages

Python	Development of integrations for Ayon. Scripts and tools for Unreal Engine, Blender, Maya and other DCCs.
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.