

Moira Shooter

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I am currently an R&D Engineer at Industrial Light & Magic, where I support and develop animation and deformation workflows. Previously, I focused on research and development of machine learning methods for reconstructing animal motion from monocular video, combining both computer vision and graphics. I am passionate about bridging these fields to create impactful and visually compelling solutions. In addition to my technical work, I have honed my communication and mentorship skills through experience as a teaching assistant.

EDUCATION

Ph.D. in Vision, Speech and Signal Processing

Thesis title: Unveiling the Potential of Synthetic Data for Animal Pose Estimation
Successfully completed with minor corrections
Supervised by Prof. Adrian Hilton and Dr. Charles Malleson

Sept. 2020 - 2024

University of Surrey (UK)

M.Sc. in Computer Vision, Robotics, and Machine Learning

Dissertation title: Two Dimensional Pose Estimation Using Synthetic Data Based on Dogs
Graduated with distinction

Sept. 2019 - 2020

University of Surrey (UK)

B.Sc. (Hons) in Software Development in Animation, Games and Effects

Graduated with upper class honours (2:1)

Sept. 2016 - 2019

Bournemouth University (UK)

EXPERIENCE

R&D Engineer @ Industrial Light and Magic Present

Engaged in creating and providing support for tools aimed at creature artists, this encompasses everything from rigging to deformations.

VFX Pipeline Intern @ GridVFX, Belgium 2018

Optimised the visualisation of proprietary scene description format by developing a prototype of a Autodesk Maya node using C++ and Maya's API

AWARDS

Best Paper Award 2024

Awarded at WACV2024 workshop on Computer Vision with Small Data with a Focus on Infants and Endangered Animals

International Student Scholarship 2020-2024

From the University of Surrey and DoubleMe

SKILLS

Programming Languages: Python, C++, C#, Bash

Libraries: Pytorch (Lightning), OpenCV, OpenGL

Tools: Git, vim, vscode

(3D) Software: Houdini, Maya, Unity3D, Blender

Operating Systems: Linux, MacOS, Windows

Spoken Languages: English, Dutch, French

Coding skills: [@MoiraShooter](#) (github profile)

PUBLICATIONS

Benchmarking Monocular 3D Dog Pose Estimation Using In-The-Wild Motion Capture Data

Workshop paper @ CVPR2024, CV4Animals

DigiDogs: Single-View 3D Pose Estimation of Dogs using Synthetic Training Data

Workshop paper @ WACV2024, CV4Smalls

MV-SyDog: A Multi-View Dog Pose Dataset for Advancing 3D Pose Estimation

Short paper @ the 20th ACM Siggraph European Conference on Visual Media Production, 2023

SyDog-Video: A Synthetic Dog Video Dataset for Temporal Pose Estimation

Journal paper @ the International Journal of Computer Vision (IJCV), 2023

SyDog: A Synthetic Dog Dataset for Improved 2D Pose Estimation

Workshop paper @ CVPR2021, CV4Animals

TEACHING AND SERVICES

Teaching Assistant @ University of Surrey

I have been guiding students for 2 courses. I guided them do practical laboratory classes in developing mixed reality applications using the Meta Quest and Unity3D and in OpenGL graphics programming using shaders

2021-2024

Postgraduate Student Representative @ University of Surrey

Be a support and representative to post graduate students

2021-2024

Public Relations Chair

Responsible for the social media for computer vision conferences such as CVMP and 3DV

2023-2024

Paper reviewer

ACM SIGGRAPH European Conference on Visual Media Production, CV4Smalls Workshop, Multimedia Tools and Applications, CV4Animals IJCV special issue