

Moira Shooter

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I am actively seeking a role as a Computer Vision/Graphics Research Scientist and/or Engineer with a focus on practical applications. I have experience in developing methods for reconstructing the motion of animals from monocular views using machine learning. With a background in software development for the entertainment industry and computer graphics, I am passionate about integrating computer vision and graphics for impactful solutions. Additionally, I have honed my communication and mentorship abilities through my role as a teaching assistant in computer graphics and AR/VR courses.

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)

SKILLS

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

Libraries: Pytorch (Lightning), OpenCV, OpenGL

Tools: Git/GitHub, vim

(3D) Software: Unity3D, Blender

Operating Systems: Linux, MacOS, Windows

Spoken Languages: English, Dutch, French

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

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

EXPERIENCE

VFX Pipeline Intern @ GridVFX, Belgium

2018

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

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 for AR, VR and the Metaverse (EEEM067) @ University of Surrey

2023

Guiding students do practical laboratory classes in developing mixed reality applications using the Meta Quest and Unity3D

Teaching Assistant for Computer Vision and Graphics (EEE2024) @ University of Surrey

2021-2024

Guiding students do practical laboratory classes in OpenGL graphics programming using shaders

Postgraduate Student Representative @ University of Surrey

2021-2024

Be a support and representative to post graduate students

Public Relations Chair

2023-2024

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

Paper reviewer

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