

Giles T. Penfold

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For examples of my work, please visit my website or get in contact personally.

Experience

Frontier Developments, Full-Time

Cambridge, UK

ANIMATION PROGRAMMER (GAMEPLAY, ENGINE)

Nov 2020 - Current

- Creating, supporting, and owning multiple advanced animation systems on Elite Dangerous: Odyssey and throughout the wider company in the Cobra engine.
- Providing programming support for the animation and design teams.
- Working collaboratively with designers, programmers, producers, artists and animators to support a multitude of complex, networked gameplay systems.

Frontier Developments, Full-Time

Cambridge, UK

GRADUATE ANIMATION PROGRAMMER (GAMEPLAY)

May 2019 - Nov 2020

- Learnt to support animators through implementation of minor animation systems on Elite Dangerous: Odyssey.
- Supported the wider team with implementation of various gameplay systems.
- Learnt how to use various industry tools such as SVN, Confluence, and JIRA.

Vynestra, Part-Time

Cambridge, UK

CREATIVE LEAD & DESIGNER

March 2019 - Current

- Leading production of a team of over 15 illustrators, cartographers, writers, editors, composers, and playtesters.
- Designing immersive tabletop systems, narrative adventures, and story-driven gameplay for 3rd party D&D 5e publications.
- Writing design documents, adjusting systems based on playtest feedback, and collaborating with other designers to create a cohesive vision for the game world.

University of East Anglia, Summer Intern

Norwich, UK

SOFTWARE DEVELOPER

June 2017 - Sept 2017

- Supervised by Dr Sarah Taylor I led the developments of a Unity package based upon latest real-time speech processing and face animation research, for e.g (Taylor et al, SIGGRAPH 2017).
- Working within the Unity C# framework and with external libraries (primarily BLAS & Math.NET Numerics), I also wrote a deep learning library in C# to complete this project.

University of East Anglia, Summer Associate Tutor

Norwich, UK

TEACHING ASSISTANT (MULTIPLE MODULES)

Sept. 2016 - June 2017

- In this role I taught practical laboratory classes in the Programming 2 (for second year undergraduates) and Graphics 2 (for final year undergraduates) modules. I taught using C++, C and OpenGL to cover topics such as; object loading and mesh optimization, real-time rendering optimization, and shader writing .
- For this teaching position my knowledge of the graphics pipeline was an extra benefit for the students, as many had not worked in 3D graphics before at an engine level. Furthermore, my instruction using 3DS Max and Maya supported students in developing assets for their assessed coursework assignments.
- A lot of problems that arise within the labs are often challenging to troubleshoot and require thinking around the problems to help lead the student to the solution. This experience honed my creative thinking skills greatly as I not only assisted in the debugging of errors in their engine code, but I also had to quickly understand what the student had implemented within their code structure and why the problem arose.

University of East Anglia, Associate Tutor

Norwich, UK

DIGITAL ANIMATION TEACHING ASSISTANT

July 2016 - Aug. 2016

- I was asked to teach on the UEA Digital Animation summer course, which involved teaching students how to utilise 3DS Max to animate a short 2 minute animation. Although my skills are founded in Maya, I had some experience with 3DS Max and was able to assist them throughout the course with transferable skills.
- Teaching - I was able to enhance my communication skills and teaching ability by working with the students through the problems they encountered, suggesting ways they could improve their work and helping them learn the software efficiently.
- Organization - I prepared for each of the lab sessions with new resources that the students could explore, often spending some time after the labs to assist with any issues that the students were struggling with.

Education

Bournemouth University

Bournemouth, UK

DISTINCTION MSc COMPUTER ANIMATION AND VISUAL EFFECTS

Sept 2017 - Sept 2018

World leading computer graphics program for games & film. Experience includes; Modern C++, strong solo research projects, collaborative group projects, Machine Learning development.

University of East Anglia (UEA)

Norwich, UK

FIRST CLASS HONOURS MASTER OF COMPUTING IN COMPUTER GRAPHICS (MCOMP)

Sept 2013 - July 2017

Experience includes; Solid foundation in C++ and game engine development, numerous successful solo and group projects, and strong research connections.

Culford School

Bury St. Edmunds, UK

OCR AS LEVEL

OCR A LEVEL

- Mathematics: A
 - Mathematics GCE: A
 - Philosophy and Ethics: A
 - ICT: B
 - Ancient History: C
- Mathematics: B
 - Philosophy and Ethics: B
 - Ancient History: C

Sept 2011 - Sept 2013

Skills

C++	7 years experience with projects focused on animation systems, simulations, and game development
Unreal Engine	3 months intensive experience within UE4
Python	3 years experience, used for Maya scripts, the Theano and Lasagne deep learning packages, and simulations with NumPy
C#	2 years experience, predominately in managed Unity code within the engine and editor. I created a neural network library for my internship within Unity
Unity	4 years experience, mostly personal projects and experimenting with game design concepts.
Maya	5 years experience, undergraduate 3rd year project included writing scripts within Maya using Python. Skills extend to simulations, rigging, animation, modelling, and rendering within V-Ray and MentalRay
OpenGL	3 years experience, mostly version 3+
Other Languages	Java, C, MEL, Matlab, F#, HTML5
Other Software	QtCreator, Mudbox, Unity, Houdini, NUKE

Extracurricular Activity

TTRPG - GM, Writer, & Designer

UK

PERSONAL HOBBY

Ongoing

- I co-ordinate and write for a TTRPG group of 12 players, arranging monthly sessions and working with complex schedules.
- I have been designing my own game world, Vynestra, from the ground up for about 5 years which has allowed me to explore game design and narrative design thoroughly. This has its own upcoming publications which are still in production.

Boardgame Design

UK

PERSONAL HOBBY

Ongoing

- I work alongside two other game designers to design and playtest boardgames in our free time.
- This involves lots of research into game design philosophy and rapid iterative prototyping.

Referees

On request