

Paul Johnston

Teitl Swydd: Datblygwr Meddalwedd, The Game Creators
Cymwysterau: BSc mewn Gwyddoniaeth Gyfrifiadurol



“Rwyf yn mwynhau datrys y problemau sy’n gysylltiedig â chanfod yr ateb cywir er mwyn cyflawni’r canlyniad dewisol, yn enwedig os yw’r ateb yn troi allan i fod yn un nad yw’n amlwg, neu’n ‘gain’.”

Mae fy nghwmni’n darparu teclynnau creu gemau hawdd-i’w-defnyddio sy’n galluogi defnyddwyr i harneisio’u

dychymyg. Gallent eu defnyddio i greu gemau rhyngweithiol 3D heb yr angen i godio, neu trwy raglennu yn ein hiaith raglennu broffesiynol.

Mae fy niwrnod nodweddiadol yn dibynnu ar gynnydd y prosiect rydym yn gweithio arno ar y funud. Gall amrywio o ymchwilio i’r dechnoleg ddiweddaraf, dylunio a gweithredu strwythur cod er mwyn ymdrin â’r data angenrheidiol, i brofi a dadfygio prosiect presennol neu un sydd bron yn barod. Weithiau gallaf gael mynediad at ddogfennau ar-lein sy’n fy helpu i godio’r canlyniad dewisol ac ar adegau eraill rhaid i mi ddefnyddio fy ngreddf a chodio datrysiaidau ymgeisio a gwallau. Mae gemau angen rheolweithiau cyflym a rhaid iddynt allbynnu canlyniadau hyd at 60 gwaith yr eiliad, felly mae cod optimaidd a thriciau twt yn hanfodol.

Rwyf yn mwynhau datrys y problemau sy’n gysylltiedig â chanfod yr ateb cywir er mwyn cyflawni’r canlyniad dewisol, yn enwedig os yw’r ateb yn troi allan i fod yn un nad yw’n amlwg, neu’n ‘gain’.

Dechreuodd fy niddordeb mewn mathemateg yn ifanc tra’r oeddwn yn yr ysgol gynradd. Gwelais bwnc a oedd yn rhoi nid yn unig broblemau ond y modd o’u datrys. Fel yr astudiais fathemateg yn lefel A gwelais sut y gellid defnyddio dulliau mathemategol gyda phroblemau byd go iawn fel y rhai mewn ffiseg a chyfrifiadureg. Ni wneuthum ddysgu am botensial cyfrifiaduron nes astudio lefel-A cyfrifiadureg, ond yn syth gwelais gyfle i gymhwyso’r fathemateg a ddysgais. Cymerais ddiddordeb ym mhroblem canfod gwrthdrawiad rhwng siapiau sylfaenol ac arweiniodd hynny fi at yrfa mewn datblygu gemau.

Mae’r gallu i dorri i lawr y datrysiaid i gamau syml y gall cyfrifiadur eu dilyn mewn iaith ddewisol yn hanfodol. Hefyd, ar gyfer datblygu gemau, mae’n gymorth medru gweld meysydd yn y datrysiaid y gellir eu newid er mwyn cyfnewid yn rhesymol fanylder am berfformiad, neu aildrefnu data i wneud y datrysiaid yn fwy syml.

Paul Johnston

Job Title: Software Developer, The Game Creators Ltd

Qualifications: BSc Computer Science



"I enjoy the problem solving associated with a challenge and finding the correct solution to achieve the desired result, particularly if the solution turns out to be non-obvious or 'elegant'."

My company provides easy-to-use game-creation tools that enable users to harness their imagination. They can use it to create interactive 3D games without the need to code, or by programming in our professional programming language.

My typical day depends on the progress of the project we are currently working on. It can vary from researching the latest technology, designing and implementing a code structure to handle the required data, to testing and debugging an existing or nearly complete project. Sometimes I can access online documents that help me to code the desired result and at other times I have to use my instinct and code trial and error solutions. Games need fast routines that must output the results upto 60 times per second, so optimised code and neat tricks are the order of the day.

I enjoy the problem solving associated with finding the correct solution to achieve the desired result, particularly if the solution turns out to be non-obvious or 'elegant'.

My interest in maths started at an early age whilst I was in primary school. I saw a subject that provided not only problems but also the methods of solving them. As I studied

maths through A Level I saw how the mathematical methods could be applied to real world problems such as those in physics and computing.

I didn't learn about the potential of computers until I studied A Level computing, but I immediately saw an outlet to apply the maths I had learned. I took an interest in the problem of collision detection between primitive shapes and that led me to a career in game development.

The ability to break down a solution into simple steps that a computer can follow in a chosen language is essential. Also, for game development, it is helpful to be able to spot areas of a solution that can be changed reasonably to trade accuracy for performance and to be able to reorganise data to make the solution simpler.