David Smith

Games Programmer

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My Profile

My professional portfolio can be found here: www.flave.co.uk

I am currently in my final year studying Computer Games Programming BSc (Hons) at Staffordshire University, seeking an opportunity to showcase my abilities and ambition in the gaming industry. Primarily I program in C++ and C#, but have competencies in Java, PHP, JavaScript and a few other languages. My skills also stretch to a strong understanding of maths and physics in 3D graphics.

During my time at University, I have explored many technologies and developed several skills in 3D and 2D Graphics, AI, Networking and Project Management. I have created two DirectX11 engines, a simple OpenGL engine, two mobile games and am currently working on a PC Unity game for "Playing With Giants".

As I constantly strive to achieve the best in tasks and projects I undertake, I would consider myself a highly motivated individual who is not satisfied until a job is complete to the highest possible quality. Experience, with a sprinkle of an enjoyment for challenge, has ensured I remain working hard in all situations.

Professional Skills

- C++
- C#
- DirectX 11
- OpenGL

- Unity
- Cocos2D-X
- Android
- Java

- SQL
- PHP
- JavaScript

Education

- Advanced Graphics and Real-Time Rendering (Level 6)
  - Developing Advanced Graphic Algorithms and Techniques such as Bump Mapping, Parallax Mapping, Parallax Occlusion, Ambient Occlusion, Deferred Rendering and Shadowing. Previous years covered other graphics, physics and AI techniques such as Particle Systems, Rigid Body Physics, AI Pathfinding, Collision Detection, Collision Response, Lighting, Texturing, OBJ Rendering and Cameras. On both graphics modules for Level 4 & 5 I was awarded First-Class Honours.
- Final Year Project (A Flora AI That Creates and Adapts Plants to Survive in a Dynamic Ecosystem)
  - For my Final Year Project, I am developing an AI system that will create and adapt plants against a range of enviromental variables to create genetic variance in generated plants. The objective is to replace an Artist's time making florae based on educated guesses and allow a tool to create belivable plant life.
- Group Game Development Project and Work-Based Simulation (Level 6) and Technical Games Production (Level 5)
  - Work based simulations attempting to replicate the environment, hardships and processes of real game studios. These modules have resulted in developing a game called "Misinformation" (unreleased) for Playing With Giants and presenting a game, Scientific Adventures of a Husky in Space, to Media Molecule, which won against games developed by other Students. I was awarded First-Class Honours in Technical Games Production and the Group Game Development Project is ongoing.
- Further Mathematics and Algorithmics (Level 5)

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  - o Maths modules covering content such as Vectors, Matrices, Quaternions, Calculus, Complex Numbers, Integration and Normal Distribution.
- Three B's in Maths, ICT and Physics A-Levels
- 8 GCSEs (5 As, Including Maths and English)
- 2 Level 2 BTECs

Work Experience

Codeweavers: Placement Backend Developer (2016-2017):

During my placement year at University, I worked as a C# back-end application developer at Codeweavers. We worked on providing finance calculators, lead management systems and retailing solutions to customers such as Alphabet, BMW, Honda and more.

Most of my time was spent split between managing vehicle data and working on the core finance engine that powers all the calculations at Codeweavers. My work in the core finance engine involved developing residual calculations for companies such as Tesla and London Taxi Company. I was also part of the development team that made the search engine that powers Mini Offers.

As this was my first job in an agile software development company, it taught me a multitude of useful skills such as:

- Project Management & Leadership
- Development Methodologies such as Kanban, Pair Programming, Continuous Integration, Test-Driven Development and more
- Dealing with stressful situations and deadlines, where a customer's product and companies reputation is on the line

iView Solutions: Technical Support & Software Tester (2014):

- Tested company software and reported logical errors and design inconsistencies.
- Developed a PHP website for a proposed child business, e-Parking.
- Dealt with customer problems on the phone, either to fix myself or to pass along to someone more qualified.
- Fixed problems that arose in the company's database due to employee/system errors.
- Managed the company stock.

Hobbies and Interests

- Gaming
- Technology
- Building Computers

- Game Engines
- Jogging
- Weights

- Website Development
- Cat Training

References

Andrew Smith, Managing Director of iView and eParking:
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