

# Eddie Long

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## Profile

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I am an enthusiastic C++ software engineer with an excellent academic background and seek to further develop and learn new skills in a challenging position. I am analytical and methodical with strong problem solving skills and an ability to quickly learn and apply technical expertise.

My employment has allowed me to expand my skills and develop quality software projects on time to a strict specification. I wish to enhance my expertise in a team atmosphere working on cutting edge technology.

## Skills

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- C/C++ (13 months + 1 year in university)
- ColdFusion (9 months)
- mySQL (9 months + in university)
- Win98/NT/XP, Ubuntu (9 months), MacOS (2 years)
- HTML/XML
- Java in university
- PHP in university
- DirectX in university
- Asterisk (9 months)
- Perforce, SVN and CVS.

## Work Experience

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**Front End developer**, Championship Manager, Beautiful Game Studios, London

**Oct '08 – Jan '10**

- Maintained and developed critical core technology for custom Front End systems for CM10.
- Liaised with back end teams, design, art and production to hit milestones and targets with strict deadlines.
- Authored solutions using delegation, observer, singleton and the visitor patterns to name but a few.
- Very proficient in C++, STL and XML. Gained knowledge in Python and the Personal Software Process.
- Awarded 'Best New Signing' at BGS release party for best new hire in 2009.
- Assumed role of mentor for new Front end developers due to extensive knowledge of Front End systems.

**Voice/Web developer**, Learnosity Australia, Sydney, Australia

**Oct '07 - Oct '08**

- Was responsible for maintenance and development of new features on internal metrics and admin sites along with front-end sites for the Computer Skills Test (CST). CST is an online exam undertaken by over 60,000 high school students every year. Also developed and maintained Farcry CMS supported sites.
- Developed a new production phone system using Asterisk PBX and PHP that enables students converse with one another and also undertake multiple choice question exams over the phone that can be immediately graded. System has since been awarded four international e-Learning awards.

## Portfolio

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### Championship Manager 2010

- Was responsible for the player, match, tactics suites, the main squad and fixtures screen for CM10.
- Developed new Front End components for use throughout the game.
- Helped architect structural changes to the Front End including developing a model-view controller based component system, back end bridge and optimised Front End loading and reloading.
- Created a productivity tool for dynamic XML reloading in-game and the ability to record and play back user actions for QA use. Constructed an automated UI testing tool to assist in finding Front End defects.
- All development work was highly critical both in terms of quality and performance as the results of all work undertaken had serious implications in what end-users saw and interacted with in the game.

## Education

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### MSc in Computer Games Technology

*University of Abertay, Dundee, Scotland.*

2006 - 2008

**Grades:** Was awarded an overall distinction in the Masters program.

**Core Modules:** Artificial Intelligence in Games, Mathematics for Games, Programming for PC and XBOX, Console Game Development, Games Marketplace and Game Design and Development.

**Skills acquired:** C++, DirectX, Ogre3D, Vector, Matrix and Quaternion math, PS2 Architecture and VCL, various AI techniques including Fuzzy Logic and Genetic Algorithms.

### Masters Thesis, 'Enhanced NPC behaviour using Goal Oriented Action Planning'

- A game simulation developed in C++ that compared two AI techniques Goal Oriented Action Planning and Finite State Machines on several levels (management, flexibility, efficiency and re-usability) in a game scenario.

### B.Sc. Degree in Computer Science

*University College Cork, Cork, Ireland.*

2002 - 2006

**Grades:** Achieved a first class honours degree with an average of 89%. Was awarded a Motorola scholarship for highest grade in the year in 2005 and was nominated for science graduate of the year in 2006 due to highest average grade in the graduating class.

**Core Modules:** Java, Artificial Intelligence, Software Engineering, Databases/SQL, Operating Systems, Virtual Reality, Web Programming, Abstract Data Structures, C Programming, Multimedia and Final Year Project.

**Skills acquired:** Java, Javascript, C, Java3D, XML, XHTML, PHP, SQL and RenderWare Graphics.

### Leaving Certificate

*Colaiste an Spioraid Naoimh, Bishopstown, Cork, Ireland.*

1996 - 2002

**Grades:** Scored 600 points which is the highest possible score. Was awarded an entrance scholarship from UCC for this grade. Received the 'Eacht an Colaiste' award from Spioraid Naoimh and achieved the Cork Chamber of Commerce award for the highest Leaving Certificate result in Economics in Munster.

**Primary Subjects:** Applied Maths, Physics, Honours Math, Chemistry, Economics, French and English.

## Additional Project Work

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**Rac'em**, 3D Futuristic Racing Game created using DirectX and C++.

- Race against AI opponents which follow pre-defined scripted racelines, collect pickups and fire rockets at the player. Other special features of the game include DirectInput support, particle effects for explosions and thrusters, 2D HUD and menu system, picking, basic planar shadows, collision detection and rigid body dynamics.

**Blok Wars**, Lego-based RTS Game. Group Project creating with Ogre3D and C++.

- Created core AI components, group and master AI elements which control the strategy and construction managers of the AI opponent. Implemented selection and health bar visualizations for units.
- Created the influence map which is used by the strategy manager to direct groups of units. Developed the pathfinding nodes to allow A\* find paths around the level.

**Revelations**, 3D first-person shooter created using RenderWare Graphics and C.

- Working prototype made for a chipped Xbox console for final year project in UCC. Created using RenderWare Graphics 3.7 for the Xbox. Gained experience in pathfinding, AI, particle effects, PVS and collision detection and response. Programmed the game entirely from start to finish.

**Spaced out**, 2D Spaceship simulator using Fuzzy Logic and Genetic Algorithms using DirectX and C++.

**Helicopter**, 3D Helicopter game created using the PS2 Linux Dev Kit.

## Achievements and Interests

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- Have an active interest in iPhone development and in the process of getting a game up on the AppStore.
- Play soccer weekly; maintain an active interest in the sport, like going fishing and attending rugby, soccer and any other sport games. Ran a marathon last year in Cork and am a regular runner.