

Your Degree in IT...What Next?

An IT degree is a valuable qualification. Computer technology is a vital engine driving and supporting everything that touches our lives from banking to medical systems, to the ways businesses and government departments operate and deal with us.

Understanding different dimensions of computing is part of the essential skill set for all graduates of the 21st century.

Expertise in IT offers rewarding and challenging possibilities. You have a foundation of knowledge, problem solving and logical thinking that will serve as a competitive advantage to you in your career, in whatever field you choose.

Degrees in CIT include:

BSc Software Development
BSc Software Development & Computer Networking
BSc IT Management
BSc Web Development
BSc Computing
BSc Information Technology Support
BA Multimedia

As an IT Graduate you will have some or all of the following skills:

A knowledge of and ability to deploy computers systems and networks to address a wide range of information technology challenges across a range of industry sectors.
A knowledge of the theory, concepts and methods needed for the design and development of new software applications and networks.
An ability to critically evaluate and apply current tools & techniques in high level computer programming, networking, mathematics, computer architecture and database in the process of system design, development and maintenance.
The ability to analyse problems from various problem domains, design appropriate system solutions, and implement and document the solution to agreed standards.
The ability to project manage a system development project, making the required architectural, networking and software selections or trade-offs, including negotiating with equipment suppliers and vendors, within agreed environmental and financial constraints.
The ability to draw upon a substantial set of diagnostic, technical, design, planning, modelling, implementation and test tools and skills, to justify their use and to apply these creatively in a variety of application domains.
The ability to work ethically and professionally as an individual or within a team with a capacity for leadership.

The ability to use appropriate research techniques and commit to on-going l within the software and networking industry.
Practical skills such as building and using database management systems and other sophisticated software tools.
A knowledge and awareness of the uses to which computers are put, recognizing issues to do with security, safety, etc...
An in-depth knowledge of programming, software engineering and web development skills, content optimisation principles, and communication and information management technologies.
The ability to manage a web development software project through all stages of development, evaluating user requirements, design, compatibility, and technology selections within agreed environmental and financial constraints.
The ability to work effectively on any stage of a web development project as an autonomous individual or as a part of a multidisciplinary development team, recognising the different roles within a team and the different ways of organising (and leading) those teams.
The ability to coordinate and supervise the configuration, testing and deployment of computer systems and the on-going support of those systems and their users.
The ability to coordinate and supervise the development of computer systems, including software components, the deployment and maintenance of those systems.
An understanding of the theory, concepts and methods in Media Design, Media Management, Media Technology and Media Informatics relevant to Digital Media.
Apply and modify Digital Media tools and techniques to solve complex design problems through research, analysis, design, development, communication and management.

Essential Employability Skills required to work in the IT sector include:

What employers say...

“Companies planning on hiring again will opt for candidates that are commercially focused, are able to multi-task and can demonstrate that they can add real value to an organisation.”

Brightwater Recruitment Annual Survey 2013

The IT Sector in Ireland – Key Activities:

- Over 200 International ICT Companies
- 600 Irish Software companies and growing

Ireland has developed one of the highest concentrations of ICT activity and employment in the world. The Sector in Ireland attracts global investment with all of the 10 US ICT companies operating here, manufacturing hardware and software. Ireland is one of the biggest exporters of software in the world. There are over 200 IDA supported ICT companies, directly employing 38,500 people. They represent 22% of total exports, estimated at €35 billion, and this is set to grow as companies take advantage of our competitive opportunities

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and knowledge-based economy. The Irish software industry is thriving. Six hundred small to medium-sized indigenous companies are bringing innovative and creative products to the world.

The ICT Sector includes an enormous range of technology and activities which include;

Software
Web-Based
Business Process Outsourcing
IT Services/Systems Integration
Shared Services of ICT Company
Automation and Process Control
Electronics Hardware
Financial Ops of ICT Companies
Electronics/IC Design
Storage
Data Supply

IT – Employment Trends

One of the big areas of growth is **cloud computing**. Global spending on cloud services is set to exceed \$36 billion in 2012, growing at four times the rate of the ICT industry as a whole (SiliconRepublic, 2012).

Ireland is beginning to establish itself as a centre for cloud computing with Microsoft and Google owning two of the 23 data centres spread around Dublin city (IDA, 2012). Microsoft claim that cloud computing has the potential to create up to 8,000 jobs in Ireland in the next few years (Action Plan on Jobs, 2012). VM Ware and EMC are key employers in the Cork area.

Jobs directly related to your degree include:

- Database administrator
- Games developer
- Information systems manager
- IT consultant
- Multimedia programmer
- SEO specialist
- Systems analyst
- Systems developer
- Web designer
- Web developer

Jobs where your degree would be useful include:

- Digital copywriter
- IT sales professional
- IT trainer

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- Network engineer
- Product manager
- Teaching
- Technical author

Job titles and skills in short supply include:

-Software applications developers (**Java, C++, C#, VB, Ruby, Perl, Python**), **network and security experts (.net, SharePoint, encryption, cloud computing, virtualisation (VMware))**, **system administrators (Oracle, J2EE, SQL Server)**, **web developers (PHP, JavaScript, XML, HTML, Flex, ColdFusion)**, business analysts and IT project managers.

- The demand for IT skills span a variety of sectors, from ICT (HP Ireland, Avaya, Quest Software) to gaming (PopCap Games), on-line gambling(Paddy Power) and energy (e.g. Endeco Technologies), with the financial sector featuring prominently as an employer of IT skills (Fidelity Investments, Monex, Fidessa, Murex).

-Jobs span managerial, professional and technician levels, with a significant majority in software development. The installation and integration of Smart Technology and Information Systems in businesses‘ and organisations spanning every spectrum is on the increase.

This is expected to further expand the use of **SaaS (software as a service)** and cloud computing platforms.

Increased use of the internet **for digital marketing, advertising, sales, networking and communication** (blogs and social networks) and recruitment purposes throughout the economy is also driving the demand for ICT skills. (Ref: National Skills Bulletin 2011.)

Typical employers

Common employers are IT consultancies and IT service providers. However, as most businesses rely on computers to function effectively, there are also opportunities within the IT departments of major organisations in the telecommunications, aerospace and defence, financial services, retail, healthcare, manufacturing, agricultural, public and third sectors. Small to medium-sized enterprises (SMEs) have a range of opportunities, too. It is also possible to set up your own business providing IT services such as web design and consultancy.

Skills for your CV

Computing degrees combine theoretical study and practical projects, teaching you subject-specific skills including:

- programming languages;
- hardware architecture and construction;
- network design and engineering;
- software engineering;
- multimedia design;

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- software tools and packages.

Job Titles in the IT sector include;

Software Development

(JEE / .NET)
Mainframe Developer
C / C++ Developer
.Net / C# Engineer
JEE Developer
Web Services Developer
Android / IOS Developer
Ruby on Rails Developer
Cold Fusion Developer
PHP Developer
Python Developer
SharePoint Developer
Engineering / Development Manager
Technical Architect
Senior Engineer / Technical Team Lead

Security / Anti-Fraud

Interim IT Security Consultant
Interim IT Auditor
Interim IT Compliance Specialist

System Analysis

Software Test / QA Engineer
QA Automation Engineer
Business Intelligence Consultant
IT Management Consultant
Business Systems Analyst / Consultant
QA / Test Manager
QA / Test Lead
Principal Engineer / Systems Architect
Data Warehousing Consultant

Support / Administration

Database Administrator (Oracle / SQL Server)
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/ Sybase)
Unix / Linux Administrator
Network / Systems Administrator
Network Engineer
Help Desk Support
Application Support Consultant
Service Delivery Manager

QA / Technical Writing / Localisation

Localisation Project Manager
Localisation Engineer
Localisation QA Engineer
Technical Writer / Editor

ERP Consultancy / Specialist Roles

SAP Consultant (Functional / Technical)
SAP Basis Consultant
Oracle Application (Functional / Technical)

IT / Project Management

Programme Manager
Senior Project Manager
Project Manager
Product Manager
Management Consultant

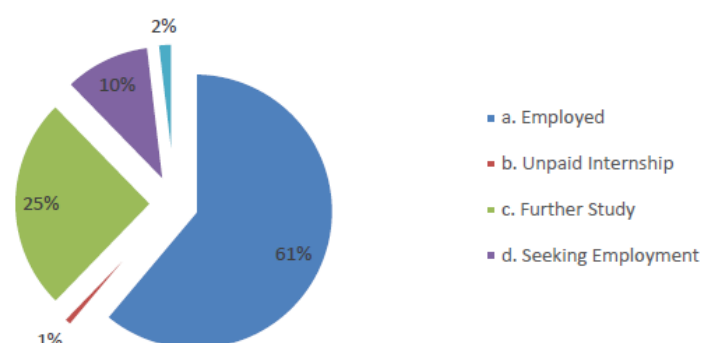
Creative / Design

UI / UX Engineer
Multimedia / Graphical / Web Designer
3D Modeller / Designer
Games Designer
Art Director
Creative Manager
Interactive Designer

What are 2015 graduates doing?

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2015 Science & Informatics Graduates (major awards): Current Situation



Company	Role
Abtec Building Technologies	Software Developer
Accenture	Technical Support Analyst
Bubble Digital	Web Developer
CIT	Animator
Core gr	Developer
EMC	Technical Support Engineer
	Associate Quality Software Engineer
	Testing Support Engineer
	Associate Solutions Engineer
	Principal Software Engineer
	Data Intelligence Engineer
	IT Generalist
	Sr. Software Engineer
	Software Engineer
eSentire	Security Analysis
Hadron Films	Video Editor
Hedgehog Fibres	Factory Technician
Huawei Cork	Junior UI Developer
IBM	Software engineer
Ibra College of Technology	Trainer, Programmer & IT Teacher
Intel	Remote operations technician
Kiernan Electrical	Electrical instrumentation apprentice
Macom	IT support administrator
Musgrave	Online Content Assistant

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Onelook Systems Ltd	Operations Engineer
Pilz	Software Engineer
Red C	Graphic Designer
Rohm Powervation	Director of test engineering
Snipp	Junior Software Developer
Solarwinds	Associate Tech Support
Studio 49	Multimedia Designer
Trend Micro	Cloud Developer
VMware	Technical Support Engineer
Wavteq	Software Developer

Postgraduate Study

Gaining a postgraduate qualification brings with it many benefits. It enables you to gain further, more specialised knowledge in your field of study. It can give you a specific technical, vocational or professional qualification and facilitate you in developing a range of key skills including; research, analysis, evaluation and written communication.

There are also many related and ‘conversion’ post grad courses if a graduate wishes to change direction/branch into another sector.

For further information, go to the ‘Further/Postgraduate Study’ link on the Students page of our website; <http://www.mycit.ie/careers>. Also look at www.qualifax.ie. For further information please contact the Careers Service on 021 4335772.

Some examples of post grad study (there are many more!);

- **CIT – MSc Cloud Computing**
- **CIT - MSc in Software Development**
- **CIT - MSc in Information & Design**
- **CIT - MSc in Information Security**

Tips:

- Check the jobs page on CIT’s Careers Service website; <http://www.mycit.ie/careers>.
- Register with gradireland to get email alerts on employment opportunities as well as job search advice; www.gradireland.com
- If you are unsure about what direction to take after your degree, the gradireland Careers Report is a useful tool for matching your personal information and preferences to potential careers. Log on and register at www.gradireland.com to use the report.

Resources

<http://makeitincork.com/>

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www.itcork.ie

<http://www.berkley-group.com/> - Recruitment Agency

<https://www.cpl.ie> – Recruitment Agency

<https://www.morganmckinley.ie/contact-us/cork> - Recruitment Agency

Professional Organisations

<http://bestconnected.enterprise-ireland.com/its-happening-here>

<http://computingcareers.acm.org>