Computer and Communications Engineering
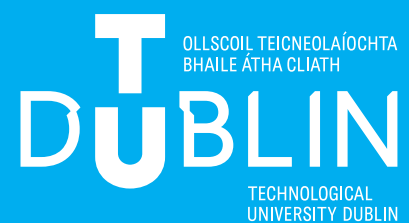
Your Careers Adviser
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OLLSCOIL TEICNEOLAÍOCHTA
BHAILE ÁTHA CLIATH

TECHNOLOGICAL
UNIVERSITY DUBLIN

Skills developed in college

You've developed a range of skills through your education, work experience and personal interests and achievements.

Understanding what skills you have to offer and like to use can help you understand what you want in a career, as well as providing key information for job or further study applications.

In terms of securing a job, academic qualifications alone will not guarantee success. Evidence-based skills sections on your CV can demonstrate the broad range of qualities you have to offer employers.

Opposite are some of the main skills you may have developed while in college:

Communication skills, both verbal and written
Expressing ideas effectively and conveying information appropriately and accurately. Influencing others by expressing self effectively in a group and in one to one situations. Showing a range of verbal and nonverbal signals that the information being received is understood.

Teamwork/working with others
Working effectively and confidently within a group to achieve a common goal or task. Including understanding your role within the team, and listening and supporting other team members.

Problem-solving ability
Identifying, prioritising and solving problems, individually or in groups; possessing the ability to ask the right questions, sort out the many facets of a problem, and contribute ideas as well as answers regarding the problem.

Time-management skills/ability to meet deadlines
Managing several tasks at once; being able to set priorities and to allocate time efficiently in order to meet deadlines.

Planning and organising
Establishing a course of action for self and/or others to accomplish a specific goal. Planning proper assignments of personnel and appropriate allocation of resources.

Leadership skills
Motivating and taking responsibility to lead other people, in order to achieve set goals and objectives.

Initiative & self-management
Identifying opportunities and being proactive in putting forward ideas and potential solutions. Self-disciplined and self-motivated, in the pursuit of studies and professional practice.

Ability to make quick decisions/work under pressure
Making decisions and taking action. Maintaining performance under pressure and/or opposition.

You may also have developed a wide range of technical/specific course related skills

Types of employers/industry sectors

Some of the main types of employers/industry sectors in which Computer & Communications Eng graduates work include:

- Software and Hardware Companies (Building blocks – e.g. Intel, AMD, Analogue Devices, Integration – e.g. Ericsson, Applications)
- Contractors
- Technical and Business Consultancies
- Banks/Financial Institutions
- State and Semi-state bodies
- Telecom Providers, Consultancies
- R+D companies, IOTs, Universities, Research depts, Start-ups
- Energy Technology and Software Development
- Education/Training Bodies
- Computer Gaming Companies
- Medical – diagnostic and monitoring equipment
- Commercial, Industrial and Public Sectors
- Offices, Retail Units, Hotels, Sports and Leisure Centres, Community Centres, Healthcare/Hospitals, Pharmachem, Food and Agri, Electronics, Local Authorities, Third level Institutions, Waste and Water Pumping, Small and Medium Enterprises, Defence Forces, Broadcasters, Telecommunication companies, Petrochemical industries
- Transport Organisations including road and rail networks, Electric and Hybrid Vehicles
- Energy Utilities, Suppliers and Providers:
- State Utilities, Gas/Electrical Suppliers, Independent Power Producers, Energy Service Companies, Local authorities, Renewable Energy Developers, State Utilties, Agents and Distributors, Original Equipment Manufacturers
- Government Agencies/Voluntary/NGOs/Professional Associations
- Self-employed/Start-ups
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For sector information see:
www.gradireland.com
www.careersportal.ie
www.prospects.ac.uk
www.targetjobs.co.uk

Career options with your course

Some of main occupations and job profiles secured by Computer & Communications Eng graduates include:

- Computer Engineer
- Communications Engineer
- Software Engineer
- Programmer/Software Developer
- Systems Analyst/Business Analyst
- Web Developer
- Web Designer
- Network Technician (entry position)
- Network Engineer
- Technical Support Engineer
- Technical Sales
- Technical Consultant
- Technical Writer
- Project Manager
- Teacher/Trainer/Education
- VOIP Engineer and Developer
- Radio Engineer
- R+D Engineer (software or hardware or combination of both (strong emphasis on software))
- Telecom Networks Operator
- Systems Engineer
- Test Technician (entry position)
- IT Research and Development Assistant
- Internet Administrator
- SAP Consultant
- Quality Assurance/Testing
- Database Manager/Designer
- Computer Gaming Engineer
- Network Maintenance

For occupational information see:
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Employers who have recruited in your area

Companies who have recruited Computer & Communications Eng graduates:
- Intel
- Google
- IBM
- SAP
- Amazon
- Oracle
- Microsoft
- Ericsson
- ESB
- NYSE Technologies
- AIB
- BT Ireland
- Pfizer
- Airspeed Telecom
- Green Isle Foods
- Workday
- Intercom
- IT Alliance

Job Hunting

It is important that you access both the advertised and hidden jobs market and use any and every means available to you to job hunt effectively.

Advertised Jobs

Most University and IT Careers Services have jobs listings on their websites:

www.tudublin.ie/jobscene
Graduate programmes and immediate vacancies

www.prospects.ac.uk & www.targetjobs.co.uk   http://www.gradcracker.com/engineering-jobs
Graduate jobs UK

www.gradireland.com
Immediate jobs/Summer/Graduate programmes

www.mondotimes.com
Local and national press

www.publicjobs.ie
www.localgovernmentjobs.ie
Public service

www.irishjobs.ie/agencies
Complete list of recruitment agencies/online recruitment sites

Company websites
Job websites - indeed.ie, irishjobfairy (twitter), irishjobs.
ie, digitalmarketingjobs.ie, digitalmediajobs.com, careerjet.ie,
alternativesdigital.ie, simplyhired.ie, prosperity.ie, gamedevelopers.ie,
monster.ie, computerjobs.ie, mobiledev (facebook), etc.

 www.tudublin.ie/careers

Other

- Careers fairs – Gradireland Fair – Autumn and Summer Fair, plus many others.
- Notice boards/Student email account/Lecturers
- Company Presentations
- Specialist Magazines & Publications, e.g.Technology Ireland, Irish Software Association newsletter, Enterprise Ireland, Engineers Ireland, etc

Voluntary Sector/Charities

www.activelink.ie
Voluntary Sector/Charity/NGO vacancies in voluntary sector

www.volunteeringireland.com
www.dochas.ie
Association of non-governmental development organisations

www.comhlamh.org
Volunteering opportunities

www.wheel.ie/directory
Directory of voluntary and community organisations

Unadvertised Jobs

Networking

- Networking – who is in my network? – classmates, lecturers, alumni, family, neighbours, colleagues, clubs and societies, TU Dublin Career Development Centre, professional bodies
- Informational Interviewing/Shadowing
- College work – projects, thesis, placement, guest speakers, student website
- Societies – e.g. guest speakers/events
- Attend events, conferences, short courses, trade shows (e.g. professional bodies, etc), National Digital Conference, Dublin, businessandleadership.com (events), Digital Learning Festival – May, http://www.gamesfleadh.ie/expo/whats-on, cross industry events, i.e. TechBrew/ISIN events/Dublin start-up Commissioner, DubLUDO (game events), Codess (female coder events for women), Dublin Unity User group, Engineers week, etc.
- Meet up groups, e.g. - 'Data Scientists Ireland' and 'Tech for good - Dublin'
- Join Alumni Association/Linked-in TU Dublin Alumni group//Related groups on linked-in, e.g. digitalmediajobsnetwork
- Find a mentor/keep a job hunting record

Contact companies directly
- Speculative applications + cold calling. Think about your offering.
- Utilise directories – Kompass.com, professional bodies, e.g. acei.ie (Consulting Engineers),Irish Software Association, Irish Software Innovation network, www.techireland.org – list of tech companies,http://www.thedigitalhub.com/companydirectory, www.mediastreet.ie – Irish Media and Creative Business Directory, etc.
- Contact companies before holiday times – Christmas and Summer
- Get a foot in the door
- Contact companies with ideas of your own to assist their business / save them money

Start Ups:

- Start-up companies – www.startupdublin.com, dublinstartupjobs.com
- FDI and indigenous – www.makeitinireland.com, www.itshappeninghere.ie
- https://angel.co/ - start up jobs worldwide

Track companies

- Scholarships/Competitions/Blogs / Guest lecturer
- Check out Labour Market trends, www.careersportal.ie, IDA (Industrial sectors), IBEC, www.dit.ie/careers (labour market news),
- Search newspaper business pages on-line to get success stories on businesses as they are growing – TU Dublin Careers website (labour market news)
- Check out industry award recipients – Best Workplaces in Ireland (download on gradireland.com), Ireland's top 1000 companies, http://www.top1000.ie/companies Award recipients – Digital Media Awards (digitalmedia.ie) http://www.digitalmedia.ie/ , Net Visionary Awards, Software Industry Awards, etc.
- Best Workplaces in Ireland (download on gradireland.com)
- www.siliconrepublic.com/topics/jobs-announcements

Other proactive ideas

- Enter competitions / scholarships
- Get Work Experience / internship
- Social networking sites (facebook, twitter, LinkedIn, Facebook, Blog, Discussion Groups)
- Linked-In (set up a profile, link to others, search for companies - employees who have
- Linked-in profiles, advertised jobs)
- Follow & target companies on facebook, linked-in, twitter
- Student Awards – Digital Student of the Year (Digital Media Award)

Entrepreneurship

- Freelancing/Work experience/Self-employment/Start-Up
- http://www.dit.ie/careers/studentsgraduates/interestedinselfemployment/
- TU Dublin Hothouse - www.dit.ie/hothouse/
- Local Enterprise Office - www.localenterprise.ie
- The Digital Hub - www.thedigitalhub.com

For more information on how to go about finding a job and job-hunting sites, See www.tudublin.ie/careers

Interviews
For more information on how to perform in interviews, See www.tudublin.ie/careers

CVs/Cover letters and applications
For information on how to put together a great CV/Cover Letter or Application, See www.tudublin.ie/careers

Useful links (e.g. Company Databases, Professional Bodies, LinkedIn Groups)

This list contains links to some of the most useful websites for your course including professional bodies and associations, employer directories, information sources and LinkedIn groups.

- www.iei.ie - Institute of Engineers in Ireland – CV posting
- www.iia.ie -Irish Internet Association
- www.ics.ie - Irish Computer Society
- www.ictireland.ie – ICT Ireland
- www.bcs.org - Chartered Institute for IT (British)
- www.iap.org.uk/main Institution of Analysts and Programmers
- www.mediastreet.ie – list of media companies
- www.icad.ie – Institute of Creative Advertising and Design
- www.theesa.com – Entertainment Software Association (US)
- www.ukie.org.uk – Trade Body Games/Entertainment (UK)
- www.tiga.org – Games Industry UK
- www.software.ie - Irish Software Association
- www.nsd.ie/htm/ National Software Directorate
- www.iet.org.uk The Institution of Engineering and Technology
- www.iie.org.uk The Institution of Incorporated Engineers (IIE)
- www.cibse.org Chartered Institute of Building Services Engineers
- www.acei.ie Association of Consulting Engineers of Ireland (ACEI)
- www.engc.org.uk Engineering Council UK
- www.graduateengineer.com Engineering website for students
- www.i-cando.ie/ - Global Digital Skills Foundation

Forums – http://www.techrepublic.com/forums/, digitalmediaforum.net, forums.frontier.co.uk, Irish Games facebook page, Irish Computer Society forum, technology-ireland.ie forum, etc.

Examples of Linked-in discussion groups – Computer and Software professionals, Research Methods for software engineering and computer science, Electrical/Electronics and Computer Development, etc.

General websites — useful links

•Worldwide Media guide - www.mondotimes.com
•Yellow and White pages directories from around the world - www.superpages.com/global/
•Specialists in Student Travel - www.usit.ie

Careers open to all disciplines
(Including 'Paths Into…' Series)

Many graduate vacancies don't require specific degree subjects as possession of a degree is taken as evidence of intellectual ability. What is more important to the potential employer is the range of transferable skills and experience you can demonstrate.

Many graduate training programmes take final year students from a wide range of disciplines, register with the Career Development Centre's Jobsence for a full list of programmes. Here is a range of career areas that are potentially open to graduates of all disciplines. It's important to note that some of these options may require further study either on the job or beforehand.
If you are considering diversifying or changing career direction a postgraduate conversion course may be a viable option.

Some examples of career areas open to students of all disciplines:

- Teaching & Education
- Financial Services & Accounting
- Marketing, Advertising and PR
- Retail, Sales and Customer Service
- Banking, insurance and financial services
- Charities and voluntary sector
- Fund management / administration and investment banking
- Human resources, recruitment and training
- Management consulting
- Management, business and administration
- Media and publishing
- Public sector and civil service
- Social, community and youth

For further information see: www.gradireland.com/career-sectors

Further Study

Are you considering further study or training? See www.tudublin.ie/careers for comprehensive information

Some examples of further study programmes undertaken by graduates of your course:

- MSc Computer Science, TCD
- MSc Software Development, TU Dublin MSc Applied Software, Athlone IT
- MSc Cyber Security, Smurfit Business School

Conversion courses

Some graduates find that their primary degree did not meet their expectations, either vocationally, academically or personally, and seek change career direction. Conversion courses offer the opportunity to diversify into another chosen career area while meeting the necessary entry requirements for that discipline. However, it should be noted that this is not the case for all disciplines e.g. disciplines such as science and engineering will require an undergraduate degree in that discipline.

Self Employment

Ever thought of being your own boss? Think you have an innovative product or service idea that could have commercial value? Want to commercialise your research? See www.tudublin.ie/careers

Other Options (e.g. Time out, travel etc.)

Volunteering and working with communities with is a great way to gain valuable real world experience, to develop new skills, to meet new people, to do something worthwhile and to improve your employability. For more details, see www.tudublin.ie/careers.

Labour Market Information

For information on the latest labour market trends see www.tudublin.ie/careers.

Additional Information/Advice

For any query you might have, please do not hesitate to get in touch with us.