

AUT

A FUTURE IN
**INFORMATION
SYSTEMS**



WHAT IS A CAREER IN INFORMATION SYSTEMS LIKE?

The ability to buy overseas products online, get Uber deliveries, assess environmental impacts, connect through social media or move money from one bank to another are just some of the ways information systems within and across organisations make a huge impact on our lives in this digital age.

Highly integrated information systems operations are at the heart of all organisational strategies, and businesses need to continue to stay up to date with the latest emerging technologies to remain competitive.

Digital technologies store, process and transmit the data that support business processes. Information systems (IS) professionals operate in the crucial area between an organisation's technological systems and its users, managing and organising the systems for the organisation.

Everything from software, data, business process improvements and social media operations flow through their fingertips, and a well-developed, cohesive information systems team is essential for the success of any organisation. This includes not-for-profit organisations and government agencies, as well as private businesses.

A clear understanding of an organisation's vision, mission and strategic goals is vital, so IS professionals need well developed general business knowledge, as well as the ability to relate to a broad range of people inside and outside their organisation. IS professionals also need a good level of technical knowledge to be able to anticipate the opportunities digital technology offers to the organisation.

Are you methodical, analytical and interested in digital technology? Do you like the idea of developing and acquiring innovative digital technologies to support business? Would you enjoy working with a broad range of professionals? If so, a career in information systems would be great for you.



OUTLOOK AND TRENDS

Organisations are racing to keep up with the scale and speed of the digital wave that is transforming the world. Artificial intelligence (AI), blockchain and big data are just some examples. There is also continual demand for expansion of communications infrastructures such as broad band, fibre and data highway.

Seamless integration of data across all channels is now essential, irrespective of the applications or devices used. This requires intensive input from Information Systems (IS) professionals who need to be constantly learning to keep up with the latest research and development.

Increased direct engagement of users with online systems, instead of customer service representatives, is also impacting on the roles of IS professionals who were traditionally in back office functions.

Big data skills – Companies can now collect increasingly huge volumes of complex data, and many don't have the resources to organise the data in a meaningful way for business purposes. Skilled big data experts are in high demand and salaries are rising accordingly.

Cybersecurity – The cybersecurity skills gap is one of the biggest threats to individual, commercial and national security. Managing the risks associated with cybersecurity threats and emerging danger from cyber terrorists and hacktivists will have a significant impact on our way of life.

Emerging trends in cybersecurity include cyberextortion and cyber-bullying on Internet of Things (IoT) devices (such as wearables and gaming systems), mobile financial fraud, identity theft, and the increasing significance of privacy breaches. Cybersecurity jobs are a growth area for IS professionals that gain certifications in cyber security.

Compliance / Revenue projects – Heavy reliance on data throughout the world is forcing many countries to increase their privacy regulations and legislation. This requires a greater understanding of where, how and why companies are using data and the growth of compliance projects. Legislation and regulations are increasing and strengthening within organisations, across organisations

and across nations. To participate in the larger world of finance, technology, movies, app development, New Zealand needs to adhere to others' rules. We can't afford to be declared uncompliant and unable to contribute.

Information systems skills in demand – The tech sector is a rapidly growing segment of the New Zealand economy and accounts for approximately 8% of our gross domestic product (GDP) and 9% of our exports (NZ Digital Skills Forum statistics). More than 120,000 people were employed in the tech sector in 2017 and about 14,000 new jobs created.

As a result, systems analysts, database administrators and business analysts are in high demand in a variety of sectors. These job titles are on Immigration New Zealand's long term skill shortage list.

Digital skills needed everywhere – It is not just the tech sector that requires staff with digital skills. The increase of digitisation is occurring across all sectors which means even the most traditional businesses need staff with advanced digital skills. Most of the growth outside the tech sector is from professional services, media, finance, construction and public administration sectors.

Sources – www.CIO.com, Robert Half Technology, Digital Skills for a Digital Nation, www.employment.govt.nz



WORK SETTINGS

IS professionals find employment in 'diverse user' organisations such as banking, government and not-for-profit, as well as with specialist Information Technology (IT) vendors and services providers.

IS professionals generally work in offices, occasionally travelling to visit clients. To meet economic or project deadlines, they may need to work weekends or evenings sometimes.

Many organisations are switching to flexible working hours to reflect modern lifestyles and project-based requirements.

GRADUATE CAREER ROLE EXAMPLES

New graduates could expect to enter a wide range of roles, of which the following two are the most common:

Business analyst – researches the systems and procedures an organisation uses, and decides if and how computer applications and systems can be better utilised to improve business operations and productivity

Database administrator – develops, maintains and administers organisations' database management systems, operating systems, and security policies and procedures.

SENIOR CAREER ROLE EXAMPLES

Senior roles, requiring experience and possibly further qualifications, include:

Information systems managers – combine technical and business knowledge to design, procure, implement and/or maintain technological solutions that support organisational goals. Are constantly assessing new opportunities and acting as liaison between users and developers.

IS project managers – initiate, plan and execute IS projects that support organisational operations and strategies, eg implementing a new information system to change how an organisation manages customer relationship information. Project co-ordinator and team leader roles lead to project management roles.

Business Process Analysts – work on process mapping and business process re-engineering. Analyse business processes and workflows to find out how they can be improved or automated. Help organisations understand and improve existing business processes or design new business processes by facilitating process workshops, developing process maps and documenting business requirements. Need to understand the big picture behind organisational objectives.

Contractor options – A contractor must be able to pitch to companies by explaining their involvement in previous IT projects. Once on contract they plan, organise and/or provide data analysis. Contractors need business analyst experience.

SKILLS AND KNOWLEDGE

Technical skills

- Knowledge of how Information Technology (IT) can impact organisational efficiency, effectiveness and competitiveness
- Ability to analyse, model and design business processes
- Understand the implications of enterprise-wide information systems
- Management of information systems resources
- Strong business data management ability
- Information systems project management skills

General skills

- Skilled in analysing and interpreting information
- Good written and verbal communication skills
- Comfortable with a wide range of people
- Problem solvers and good time managers
- Able to work well under pressure
- Excellent planning and organising skills

PERSONAL QUALITIES

- Methodical and accurate
- Good eye for detail
- Curious about how systems are developed, maintained and used by business
- Understanding, adaptable and patient

SALARY GUIDE EXAMPLES

	Salary (per year)
Database/systems administrators	\$66,000–\$90,000 \$80,000 (median salary) Contractors on an hourly rate may earn more than this.
Business analyst	\$80,500 – \$100,500 Median \$92,000
IT project manager /Team lead	\$90,500 – \$127,500 Median salary \$100,000

Sources: RabsoluteIT Tech Remuneration Report 2018, Robert Walters Salary Guide 2018, Madison Salary Guide 2018

Salary range is indicative of the New Zealand job market at the time of publication (mid 2018) and should only be seen as a guideline.

THE AUT APPROACH

All Information Systems students take part in a co-operative education placement in their final year. This is a supervised work placement and involves employment in a real-world business, not-for profit organisation, entrepreneurial venture or an applied project. This can be done in New Zealand or overseas.

Recent placements include Westpac, Quantum Solutions NZ Ltd, Open Systems Specialists, Optimisation NZ, Griffin Foods, Vodafone NZ, KPMG, Datacom.

FURTHER STUDY OPTIONS

Postgraduate options in IS include postgraduate certificate and diploma, honours, masters and PhD programmes.

Research specialisations include the following:

- Global information management
- Information systems strategy and governance
- Information technology for development
- Digital innovation and patent right management
- Collaborative networks

PROFESSIONAL REGISTRATION

Membership of organisations such as International Institute of Business Analysis (IIBA) and Professional in Business Analysis (PMI-PBA) credentials are becoming a requirement for an increasing number of organisations.

A portrait of Bill Lomas, a man with short brown hair and glasses, smiling. He is wearing a dark blue suit jacket over a light blue button-down shirt. The background is a blurred glass and metal structure, possibly a modern building entrance.

BILL LOMAS

Senior Business Analyst

BNZ Transformation and Enterprise Performance

Bachelor of Business in Business Information Systems
and Accounting*

"I have been a business analyst for 6 ½ years working in various business analyst roles at public and private companies, including NZ Companies Office and Fisher & Paykel Finance. I felt that my study at AUT was quite beneficial, as it made me work with diverse groups of people in terms of outlook and aptitude.

For the past for 2 ½ years I have worked at BNZ as a Senior Business Analyst in a project-based role on various large projects. Initially I was a support business analyst which requires consulting people inside and outside the business, creating data diagrams and plans and optimising procedures and processes to enable change.

Now I'm in a lead role. This involves a heavier focus on planning as I organise work for the other supporting business analysts and manage how their work will combine at various stages throughout the project to produce the outcomes needed.

The amount of information and learning available in such a huge environment continues to amaze me – I am always finding new areas to explore and learn about. This is also the biggest challenge about the role – there is so much to take in and digest that it can be quite daunting. But the freedom to explore and express ideas and the potential for growth and leadership is fantastic.

I see myself continuing to develop at BNZ as there is an extensive amount of opportunity for learning and advancement.

Looking forward I feel that I have enough diversity and change within BNZ now and in the future to keep me invested."

*Business Information Systems major has been renamed Information Systems

EMPLOYER COMMENT

"Senior Business Analysts need to design and implement change for the bank, which involves a very complex and wide ranging skill-set. They need to be very technically adept, and have well-honed interpersonal skills as they work across the organisation and with external stakeholders to deliver on demanding objectives.

Bill has a fantastic personality, and in a short space of time forged good relationships inside the team and with the larger project community. Successful business analysis is a collaborative process, so strong relationships and a wide network is essential."

Dave Bedford

Lead Business Analyst
BNZ

USEFUL WEBSITES

IT Professionals New Zealand

www.iitp.org.nz

Business Analyst Learnings

<https://businessanalystlearnings.com>

absoluteIT Recruitment

<https://absoluteit.co.nz/>


FURTHER INFORMATION

For the most up-to-date information on Information Systems studies and the Bachelor of Business, visit our website www.aut.ac.nz/is

FUTURE STUDENTS

Contact the Future Student Advisory team for more information: www.aut.ac.nz/enquire

futurestudents@aut.ac.nz

 @AUTFutureStudents


CURRENT AUT STUDENTS

Contact the Student Hub Advisors team for more information:

0800 AUT UNI (0800 288 864)

www.aut.ac.nz/enquire

studenthub@aut.ac.nz

 @AUTEmployabilityandCareers

EMPLOYABILITY & CAREERS

For other Future Career Sheets visit:

www.aut.ac.nz/careersheets


For employability and career support, AUT students can book an appointment through

<https://elab.aut.ac.nz/>


CITY CAMPUS


55 Wellesley Street East, Auckland Central

CONNECT WITH US NOW

 @autuni

 @AUTuni

 AUTUniversity

 @autuni

The information contained in this career sheet is correct at time of printing, August 2019.

