A hand is shown in the foreground, pointing towards a digital financial chart. The chart features a candlestick pattern, a blue bar chart, and a red dashed trend line. The background is a dark blue grid with various data points and indicators, including a red triangle pointing down and a white triangle pointing up. The overall aesthetic is futuristic and data-driven.

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 (IS) within and across organisations make a huge impact on our lives in this digital age.

Highly integrated IS 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. 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 IS 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, creative and interested in digital technology? Do you like the idea of developing innovative digital technologies to support business? Are you curious about how technology can improve business processes and solve complex problems? Would you enjoy collaborating with diverse range of professionals to deliver innovative and sustainable solutions?

If so, a career in information systems could 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 broadband, 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 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.

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

Emerging trends in cyber security 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. Cyber security 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. Laws and regulations are becoming more stringent within and across organisations, as well

as across nations. For New Zealand to actively engage in the global arenas of finance, technology, movies, and app development, adherence to international regulations is essential. We can't afford to be declared uncompliant and unable to contribute.

**Information systems skills in demand** – The tech industry has a specific shortage of skilled workforce in emerging technologies such as AI, cyber security, data science, and blockchain, as well as in the soft skills essential for the expansion and operation of digital enterprises, according to MBIE New Zealand.

The 2023 NZTech Annual Report found a 9.8% increase in the number of digital technology businesses in New Zealand in 2022, along with 6.2% growth in new tech jobs, resulting in the creation of 6,880 new employment opportunities.

**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 agricultural technology, manufacturing, building and infrastructure, FinTech, healthcare, and the food and drink industry.

Source: Ministry of Business, Innovation & Employment, New Zealand.



## 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.

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** – analyses business systems, and determines potential enhancements to business processes, operations and productivity through the effective utilisation of information technology and systems.

**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. Continuously assess new opportunities and serve 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 transform how an organisation manages customer relationship information. Roles such as project coordinator and team leader are often stepping stones to project management positions.

**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 (independent professional)** – must effectively pitch to companies by showcasing their involvement in previous IT projects. Once contracted, they are responsible for planning, organising, and/or providing data analysis services. Business analyst experience often needed.

## 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 implications of enterprise-wide information systems
- Ability to manage 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 diverse range of people
- Problem solvers and good time managers
- Able to work well under pressure
- Excellent planning and organising skills
- Can demonstrate ethical commitment

## PERSONAL QUALITIES

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

## SALARY GUIDE EXAMPLES

Salaries vary across each sector, depending on the size and location of the employer.

	Salary (per year)
Graduate starting salary range	\$60,000-\$70,000 (depending on role and organisation)
With 5 years' experience	\$120,000-\$160,000+ (depending on role and experience)

Salary range is indicative of the New Zealand job market at the time of publication (early 2024) and should only be used as a guideline.

**Keep up to date with salary data by visiting websites, including:**

### Prosple Graduate Salary Guide

[nz.prosple.com/on-the-job/whats-the-average-graduate-salary-in-new-zealand](https://nz.prosple.com/on-the-job/whats-the-average-graduate-salary-in-new-zealand)

### Absolute It

[absoluteit.co.nz/wp-content/uploads/2023/03/Absolute-IT-Job-Market-Salary-Report-2023.pdf](https://absoluteit.co.nz/wp-content/uploads/2023/03/Absolute-IT-Job-Market-Salary-Report-2023.pdf)

### Careers NZ

[careers.govt.nz/job-hunting/whats-happening-in-the-job-market/salary-guide/](https://careers.govt.nz/job-hunting/whats-happening-in-the-job-market/salary-guide/)

### Hays Salary Guide

[hays.com.au/documents/276732/1102429/](https://hays.com.au/documents/276732/1102429/)

## THE AUT APPROACH

All IS 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 Bridgestone NZ, LG Electrics NZ, Mainfreight, Open Systems Specialists, Optimisation NZ Ltd, Quantum Solutions NZ Ltd, AIA and One NZ.

## FURTHER STUDY OPTIONS

Postgraduate options in IS include postgraduate certificate and diploma, honours, master's 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 and credentials of organisations such as International Institute of Business Analysis (IIBA) and Professional in Business Analysis (PMI-PBA) are becoming a requirement for an increasing number of organisations.



## ILAISANE FALEVAI

Information Security Analyst, Metlifecare

Bachelor of Business in Information Systems and Management

“Cyber security has always seemed a cool and interesting space to me so working as an information security analyst is something I really enjoy.

As an information security analyst at Metlifecare, I look at the security of internal systems to make sure they are up to date and meet standards. This includes working with our teams so everyone is aware of what they need to do to protect our information and comply with company policies. Metlifecare holds a lot of confidential data, such as health and financial information, so it is really important everyone is following company policies and security practices.

There is so much opportunity for me to learn about cyber security here and I really enjoy it. In the cyber security space, you can never be comfortable with your knowledge and skillset because individuals with malicious intent are constantly looking for innovative ways to break into systems for financial gain or for fun. You are constantly on the look-out for new threats, and upskilling and learning on the go.

I chose to study information systems because I liked the concept of being the middle person – or bridge – between the business team and technology team, connecting and making sure both sides understand each other’s needs and requirements. In this cyber security role, I literally am that person.

During co-op, I secured a role at Microsoft as a modern workplace specialist focusing on improving organisational processes using Microsoft solutions. That role gave me my first glimpse of working as the bridge between the business and technology teams to understand clients’ needs. From Microsoft I went to a similar role with Datacom. At Datacom I also had the chance to manage and run projects for clients. I then moved to EY to experience a more technical role, working specifically with ServiceNow to help our clients.

I applied for my current Metlifecare role because I had decided that the cyber space was where I really wanted to work. Metlifecare offered me the opportunity to train, develop and support my career in cyber security.

### Ilaisane’s advice

Do not to be scared of applying for jobs. I think graduates often self-reject because they don’t fully meet the requirements or think they don’t have enough experience.

Another important piece of advice is to network! Job opportunities come from putting yourself out there and meeting new people. Attend the career expos at uni. Connect with people employed at companies you want to work for through LinkedIn. A LinkedIn profile really helps, so make sure you have one. It’s the “corporate” version of Facebook.”

## USEFUL WEBSITES

### IT Professionals New Zealand

<https://itp.nz>

### Business Analyst Learnings

<https://businessanalystlearnings.com>

### absoluteIT

<https://absoluteit.co.nz>

## FURTHER INFORMATION

For the most up-to-date information on information systems studies and the Bachelor of Business, visit [aut.ac.nz/is](http://aut.ac.nz/is)

For other Future Career Sheets visit [aut.ac.nz/careersheets](http://aut.ac.nz/careersheets)

### EMPLOYABILITY & CAREERS


For employability and career support, AUT students can book an appointment through [elab.aut.ac.nz](http://elab.aut.ac.nz)

 @AUTEmployabilityandCareers

### FUTURE STUDENTS

Contact the Future Student Advisory team for more information: [aut.ac.nz/enquire](http://aut.ac.nz/enquire)

[futurestudents@aut.ac.nz](mailto:futurestudents@aut.ac.nz)

 @FutureStudentsofAUT

### CURRENT AUT STUDENTS

Contact the Student Hub Advisors team for more information: 0800 AUT UNI (0800 288 864)

[aut.ac.nz/enquire](http://aut.ac.nz/enquire) | [studenthub@aut.ac.nz](mailto:studenthub@aut.ac.nz)

### CITY CAMPUS

55 Wellesley Street East, Auckland Central

### Connect with us now:



The information contained in this career sheet is correct at time of printing, early 2024.

