INFO1111: Computing 1A Professionalism

Project 2B

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Group Number: 3

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Contents

1 Introduction

The subjects we choose correspond to some of our own demands. First of all, Guanyi Du chose QBUS3350 and BUSS1040. The purpose of the two courses is to discover the commercial value of information and make use of it. Then there is Jero Zhu, who has chosen DECO2102 and ISYS2120 to learn web design and how to use databases, respectively, to prepare for future employment. Next came Mian Wei. He wanted to discover the rules in data and use them to predict their possible future trend, which was also to prepare for his future work as a data analyst, so he chose Math1005 and QBUS2820. Finally, Yuhan Wang wants to make his own contribution to the automation of medical treatment or agriculture in the future, so he has to know some medical knowledge and find a crop with high commercial value, which makes him choose ECON1002 and CHEM1011.

2 Major Allocation

We started with a description of our interests and direction and had a ZOOM meeting. For different fields, we seek different professional knowledge. Generally, Jero Zhu chose Information System and Design, while Mian Wei chose Statistic Business.Guanyi Du chose Business and Commerce, and Yuhan Wang chose Medic and Agriculture.These fields are widely distributed, but our goals are generally the same: to replenish our expertise and prepare for future employment, and to create value in our fields.

	Name	Major
1	Jero Zhu	Software Development
2	Mian Wei	Data Science
3	Guanyi Du	Information Systems
4	Yuhan Wang	Computer Science

3 Recommendations

3.1 Computer Science

I chose Medicine and Agriculture. The reasons are simple but mainly include two things. First, the two courses cover a wide range of subjects, and second, they are both practical subjects.

These two elective courses have a lot of applications, whether it is hospital medical system, or automated farm management can not be separated from computer science. The hospital health care system is faced with a large number of patients every day, including the elderly, young and children. The level of education of these patients is different, which makes the procedure readability a requirement. So the person writing the program naturally has to have a certain amount of medical knowledge, because they have to have that knowledge before they can explain it in plain English to others. And then there's Agriculture. For example, when you're writing programs for automated cotton-growing when to sprinkle water, what humidity and temperature to keep in the greenhouse, and so on. These are things that need to be taken into account and written into the program, which brings up the need to have an understanding of agriculture.

When it comes to medicine, the first thing we need to know is chemistry. Medicine themselves are the product of the application of chemistry in life sciences. So I choose Chemistry (CHEM1011) as my elective course. Although chemistry plays an important role in medicine, how can it help students of computer science? In modern hospitals, more and more automated procedures have been added. First, the appointment system, then the medical examination, and finally the purchase of drugs, all these procedures can be automated. In the process of automation, programmers who write programs inevitably need to be familiar with and understand certain medical knowledge. And the beginning of all this, in my opinion, is chemistry. Since chemistry is so important, are there any special requirements for studying chemistry? According to the University of Sydney website, There is no assumed knowledge of chemistry for this unit of study but students who have not completed HSC Chemistry (or equivalent) are strongly advised to take the Chemistry Bridging Course (offered in February). (USTD, N.D.)

Next, I would like to talk about the electives in agriculture. First of all, we need to define a target, the target is what kind of crops to breeding, and the best way to choose is to consider their economic value, and if we need to analyze whether a crop has commercial value. I think ECON1002 is a really good choice. The second step is to understand how computer science as a major applies to the field. First of all, different crops have different growth cycles, and different periods require different amounts of water, temperature and sunlight. These factors are variables, and the control of variables happens to be an important and frequently used part of computer science. Using the knowledge in computer science to establish a set of the crop management system is a quite feasible scheme. Since the first step is to understand which crops have high commercial value, it is necessary to learn ECON1002. First of all, the requirements for the course, Students enrolled in this unit have an assumed knowledge equal to or exceeding 70 or higher in HSC Mathematics (or equivalent), or

35 or higher in HSC Mathematics Extension 1 (or equivalent), or 35 or higher in HSC Mathematics Extension 2 (or equivalent). (USTD, N.D.)

Finally, I will summarize the above. My chosen fields are agriculture and medicine. In these two aspects, the general direction of the application of computer science is the same, that is, the automation part of modernization. Automation, as the name implies, is to replace manual labour with machines, and machines are run in accordance with the program, and the program is the way to apply computer science. However, there are some differences in the professional courses of the two fields. In medical treatment, I hope to learn some knowledge about drugs first, because drugs are the second most important thing in hospitals besides doctors. However, in terms of agriculture, I want to start from the economic aspect, because I need to know what agricultural products I want to know, that is, which agricultural products with high economic benefits are. In the end, I chose ECON1002 and CHEM1011.

To make my argument more convincing, I'm going to give you some examples. The first is to prove the importance of chemistry in medicine, the essence of life is the complex chemical reaction, and the life of death is the end of the reaction, the effect of drugs and medicine is to add the necessary by this chemical elements or add a catalyst, add can save lives and correct the wrong drug will direct the end of the reaction, also is death. This makes it impossible for a programmer to be sloppy, a single mistake, a pill of the wrong kind, could be a disaster. Therefore, chemistry is a must to learn, whether it is in the supplement of professional knowledge, or respect for the lives of others, this is a must. Followed by the choice of crops, through some of the information on the Internet search, I found that in addition to planting conditions, planting quantity, the yield under the same area, the worldwide popularity, the margins when selling, the cost of land, the cost of workers machinery must be taken into account, so I will face the choice of diversification in choosing targets. I still can't make an accurate judgment or make a decision, which makes me have to study and understand the economic market, then analyze the data and make my choice.

3.2 Data Science

In a data-rich world, students who majored in data science are facing a huge amount of data, and sometimes they do not know how to analyze data and use data to make a prediction (especially in the business field, to help make comparisons to competition, analyze the market, and ultimately, make recommendations of when and where your product or services will sell best). They should have statistical thinking and data analysis ability so that they will have better development. In my opinion, MATH1005 in Statistics area and QBUS2820 in Business Analytics area are good choices as electives.

The full name of MATH1005 is Statistical Thinking with Data, this unit concentrates on basic statistical concepts, including experimental design, exploratory data analysis, sampling, and sampling and tests of significance. About QBUS2820—Predictive Analytics, this unit introduces different techniques of data analysis and modelling that can be applied to traditional and non-traditional problems in a wide range of areas including stock forecasting, fund analysis, asset allocation, equity and fixed income option pricing, consumer products, as well as consumer behaviour modelling (credit, fraud, marketing). The forecasting techniques covered in this unit are useful for preparing individual business forecasts and long-range plans. The unit takes a practical approach with many up-to-date datasets used for demonstration in class and the assignments.

Statistics is used in every aspect of life, such as in data science, robotics, business, sports, weather forecasting, and much more ... Additionally, statistics help in learning mathematical concepts better. This is how statistics can be used in each aspect of real life. Statistical thinking is the ability to align one's thoughts with the fundamental ideas of statistics, allowing the person to make better decisions in any given situation. Why do people need statistical thinking? Actually, human intuition often tries to answer the same questions that we can answer using statistical thinking, but often gets the answer wrong. For example, in recent years most Americans have reported that they think that violent crime was worse compared to the previous year (Pew Research Center, 2020). However, a statistical analysis of the actual crime data shows that in fact, violent crime has steadily decreased since the 1990s. Statistical thinking provides us with the tools to more accurately understand the world and overcome the fallibility of human intuition. The core of MATH1005 is Statistical thinking, this course will teach students how to process data with R and critique the use of statistics in media and research papers, with attention to confounding and bias, which is powerful skills in data science students' professional careers (like statistician, data analyst and data scientist). Statisticians think in terms of probabilities and variation and search for the data that might support specific contentions and assess their validity. For example, in assessing the safety of different forms of travel, statisticians might estimate the risk probabilities associated with the various alternatives and tailor these to their specific situations, such as driving skill, available air travel options, and weather conditions ("The excitement of a career in statistics" 2012).

In business, predictive analytics is becoming more and more important for company development. To be more specific, predictive analytics has captured the support of a wide range of organizations, with a global market projected to reach approximately $10.95 billion by 2022, growing at a com-

pound annual growth rate (CAGR) of around 21 per cent between 2016 and 2022, according to a 2017 report issued by Zion Market Research. Predictive models will exploit patterns found in historical and transnational data to identify risks and opportunities. Models capture relationships among many factors to allow assessment of risk or potential associated with a particular set of conditions, guiding decision-making for candidate transactions (Coker, Frank, 2014). For example, in 2004, Walmart mined transaction data in its stores to understand buying habits at certain points in time. They found that right before hurricanes hit, strawberry Pop-Tart sales rose by seven times along with beer. There are six main applications of predictive analytics in business: customer targeting, churn prevention, sales forecasting, quality improvement, risk assessment, financial modelling. These six applications help students get a better understanding of what they will do when they select related jobs (like project manager, IT systems analyst and operations analyst). To develop the ability of predictive analysis, QBUS2820, in this unit, students will be systematically trained how to select and use the appropriate technique to analyse the structure of multivariate data, apply multivariate data techniques using a training data set to predict classifications for real data, understand the characteristics of time-series data in order to analyse real business data of this form and select and use an appropriate technique to predict the future behaviour of business variables of interest, including the prediction of discrete outcomes.

In data science, statistical thinking and predictive analytics are essential and valuable. What careers can students pursue with statistical thinking and predictive analytics? In general, there is a great demand in the business area. If students enjoy evaluating and analysing data, creating solutions, a career as a business analyst could be for them. The business analyst will work within an organisation, helping to manage, change and plan for the future in line with their goals. This could be for one specific project, or as a permanent feature of the organisation. Business analysts need to understand the current organisational situation, identify future needs and create solutions to help meet those needs. Referring to the 2021 average salary for a Business Analyst in Australia, the base salary is between AU $59k and AU $112k per year, and the average salary for a Business Analyst is AU $82,241 per year. If students are highly analytical and have strong mathematical skills, data analyst tends to be a better choice for them. Data analysts are in high demand across all sectors, such as finance, consulting, manufacturing, pharmaceuticals, government and education, and the 2021 average salary in Australia for a Data Analyst is AU $71,994 per year.

In conclusion, MATH1005 and QBUS2820 will develop data science students' statistical thinking and predictive analytics, which are not only beneficial for learning data science but useful in careers. Students can rely on these two points to be more competitive in the future careers and maximize the benefits of the company and society.

3.3 Information Systems

Information system students will focus more on data analysis and processing, and use programming languages for big data processing. For students of Information systems, if the analytical skills and business skills are combined, it may bring more advantages in the future competition. Based on the above thoughts, I think QBUS3350 and BUSS1040 in the Business and Commerce area are suitable as electives.

The full name of QBUS3350 is Project Planning and Management, this course focuses on teaching students the ability to plan, implement and manage activities to achieve specific organizational goals, and discuss the challenges that project managers may encounter. BUSS1040 is a compulsory course for the Department of Finance, which full name is called Economics for Business Decision Making, it teaches students basic business knowledge and decision-making, as well as interaction in the market. Students majoring in information systems have certain data analysis skills, advanced mathematical and logical thinking skills and the ability to write codes, and they will have the ability to operate, manage and make decisions on the system in the future. I will analyze the advantages of the two elective subjects to explain why it is suitable for students of information systems to study.

QBUS3350 course will teach students the ability to plan, implement and manage activities. Under normal circumstances, students majoring in information systems will be more inclined to perform database operation and maintenance management. After learning this course, they can participate in the product planning process. For any database product, performance is particularly important. Databases are usually designed by architects, and unreasonable basic database structure design can lead to hidden dangers in system performance. After the number of data increases, the performance and stability of the database begin to decline, which will directly affect the response speed and user experience of the product. If personnel with organizational skills and operation and maintenance capabilities are planned in the early stage of the design, it will save a lot of time and money for maintaining the database in the later stages. On the other hand, another advantage of studying this course is that it broadens the scope of work, it can provide students with the knowledge base as a project manager. According to Miller in 2019, the responsibility of the project manager is to organize the plan and to ensure that these projects are carried out on time, within the budget and within the scope. The responsibility of the project manager is to organize the plan and to ensure that these projects are carried out on time, within the budget and within the scope. Through the planning process, the project manager can make the project run reasonably, thereby helping to reduce costs, maximize company efficiency and increase revenue. And this job has certain market demand, by 2027, the role demand for project management will reach 87.7 million, according to the article on the Payscale website, the average annual salary of a project manager is $88,825, which is higher than the database administrator's 73,458 U.S. dollar. Even if it is only used as an additional study, learning management can also allow students to better understand the overall situation of their work, thereby making the work more planned, improving work efficiency and making themselves more competitive.

In recent years, business is inseparable from the support of financial knowledge. Financial ex-

perts will provide companies with strategic decisions, and this decision will bring benefits or losses to the company, the principles of managerial economics are designed to influence and guide the company to obtain the best results ("A Definition and Explanation of Business Economics," 2019). BUSS1040 course will teach students how person purchasers and companies make selections and the way they have interact in markets, it also uses a framework for students to understand and analyze the economic and public policy environment in the context of corporate competition ("Unit," n.d.). Information system students have the ability to manage a large amount of information in the database by operating programming languages such as SQL, and also because of the foundation of data science and mathematics, their ability to analyze data also has certain advantages. The knowledge provided by this elective course provides information system students with the career direction of business analysts. Business analysts are responsible for collecting and analyzing independent projects, proposing targeted plans and recommendations, and building a business analysis framework for specific business topics. Due to the improvement of computer computing power, it provides convenient conditions for big data analysis. By processing these data and combining business analysis, it can predict market trends and help companies make decisions. The US Bureau of Labor Statistics (BLS) reports that the median annual salary of management analysts in 2020 is $87,660. The highest income earners earn much more, and the top 10% earn more than $156,840. Studying business undoubtedly gives students more choices and the possibility to try another field of work.

Taking these two subjects as elective courses also lays the foundation for later learning and higher positions. These two cross-professional courses are relatively basic courses in business, learning these two courses provides students with another choice after they are tired of studying engineering. Furthermore, after having the foundation of these two management and business, students will have the opportunity to try higher-level knowledge, such as learning a master of business administration and then can play a greater role in management positions at work, such as becoming a chief information officer (CIO). The Chief Information Officer (CIO) is a company executive responsible for the management, implementation and availability of information and computer technology, CIO must use multiple skills to be competent for this job. This position needs to know how to conduct business because this job requires a lot of knowledge about the way the company operates up and down, and it should also understand technology trends of information technology, so companies usually require CIOs to have a bachelor's degree in related fields, such as computer science, database management, etc (Kenton, 2019). The job requirements explain the necessity of these two courses. The CIO is the same as other CXO positions, almost at the top of the company's career, and correspondingly, there are high salary returns, according to The US Bureau of Labor Statistics the 2020 Median Pay of CIO is $151,150 per year.

In conclusion, learning the two courses QBUS 3350 and BUSS1040 will teach students the basic knowledge of management and business, and give students more choices in academic and work. Students can no longer be limited to technical positions such as database management so that they can look for jobs in analysis and management positions. Finally, learning these two courses also lays the foundation for a higher level of learning, and all-around development can gain more competitive advantages in today's society.

3.4 Software Development

For the Software Development major, I chose two elective units from the shared pool of our university.

The first elective unit is DECO2102 Introduction to Web-based Design, which is from the design area. This is a 2000-level unit of study, which has no prerequisites and corequisites, the only prohibition for this unit is DECO1016, which is Introduction to Web Design.

As the student handbook describes, “This unit introduces students to web design and modern web technology to design and prototype web-based user interface solutions. Students will learn the principles and patterns of web design and apply them to practical exercises involving designing and creating interactive user interfaces. This unit will introduce interface sketch and wireframe tools and techniques. We will discuss various media and platforms, such as desktop computers and mobile devices, with an emphasis on interaction design. Students will develop an understanding of web technology and its role in user experience and interaction design, including the use of web technology to prototype user interfaces. The prototyping techniques covered in this module include interface sketches and wireframes to develop dynamic content and interaction design”("Office," n.d.).

As the description shows here, this unit is a design unit set up for web designers. One of the points that I recommend to software development students is that “focus on interaction design”, this outcome is quite important for software engineers, which is going to be the future career of most software development students. While making software or a web page (which is mentioned in the description of the unit in the handbook), developers always should consider the feeling of users, and take advice from them, for example, the buttons are too big, or the process is too complicated. When developers met this kind of condition, they need to think of solutions. Somebody might say that that’s the designers’ work, but it’s not.

Tim Wright is the author of Learning JavaScript: A Hands-On Guide to the Fundamentals of Modern JavaScript. According to him written in The 5 Most Important Skills a Web Developer Needs, “The days of shrugging your shoulders and saying, ‘I don’t know, I’m not a designer,’ are over . . . understanding typography, color theory and grid design (as examples) will help you understand decisions designers make” (Wright, n.d.). This quote shows that design is not only important to designers, also to the web developer, which is one of the pathways of students learning software development area. Words later in the quoted chapter also show the importance of software developer learning knowledge of design, “Without that knowledge, you’ll probably find yourself getting frustrated a lot more than you need to when you can’t track down a designer to ask a question” (Wright, n.d.). And “as a developer, knowing a little bit about design can go a long way in your career. Many people jokingly refer to this as “knowing enough to be dangerous” (Wright, n.d.). As the quote shows clearly, design is one of the additional skills that developer may have to make the team works better and more efficient.

And as the responsibilities part of recruitment information posted by Google on Linkedin "Design, develop, test, deploy, maintain and improve software" shows, design has been one of the skills that a software developer should have. (0 Software%20Engineer jobs in China, n.d.)

To be simple, this unit can help students of software development have basic knowledge of designing a webpage and get used to the life of a developer which they might have in the future. The opportunity that might result from undertaking this unit is a more or better working opportunity. Many companies write on the recruitment webpage asking for engineers to have design skill, and cooperation skill, which can be improved after students getting to know the work designers do

The second elective unit I selected for software development student is ISYS2120 Data and Information Management, which comes from the area of Information System. The prerequisites of this unit are INFO1113 OR INFO1103 OR INFO1105 OR INFO1905 OR INFO1003 OR INFO1903 OR DECO1012, while INFO1113 is a required unit in the first semester of Advanced Computing students, and the prohibitions are INFO2120 OR INFO2820 OR COMP5138

The description of this unit in the handbook is "With the wide application of information technology, we are faced with a large amount of data generated by users, IT systems and mobile devices. Therefore, proper management of data is critical to effective decision making across all applications and within the organization.

This unit will introduce the basic concepts of database design at three levels: conceptual, logical, and physical. We will place special emphasis on introducing the concepts of integrity constraints and data normalization to prevent data from being corrupted or copied in different parts of the database. This, in turn, helps to keep the data consistent throughout its life cycle. Once the database design is in place, the focus shifts to querying the data in order to extract useful information. This module introduces the industry-standard SQL database query language. Other topics covered will include important concepts of transaction management, application development using back-end databases, and an overview of data warehousing and OLAP"("Office," n.d.).

The key point that appears in the description is "database". As the recruitment description of the software development engineer on Linkedin from Amazon China states in the part of basic information, "Object-Oriented Design and familiarity with application and database programming under UNIX/Linux; Experience with ... database and data mining systems"("0 Software%20Engineer jobs in China," n.d.). As the recruitment information shows, the capacity of the database is a necessary skill of a software developer or engineer, especially for big companies. This can be proved by the recruitment information from Google on Linkedin as well, "We're looking for engineers who bring fresh ideas from ...data storage..." (0 Software%20Engineer jobs in China, n.d.). Therefore, one of the benefits of undertaking this course is more career opportunity.

In a word, to choose this unit as an elective course, students can gain skills on the database, and improve their competencies when looking for internships or formal jobs.

Like all the previous, the two elective units I recommend to Software Development students are DECO2102 Introduction to Web-based Design and ISYS2120 Data and Information Management, which are from the design area and the information system area.

4 Contributions

We mainly cooperate through ZOOM meetings and use WeChat for daily communication and document submission. Although we did not determine the team leader, the members supervised and reminded each other, and achieved good results.

We distribute the work on an equal and peaceful basis. In the process of working together, we helped each other solve problems and ended up with a great project. Before the start of the personal area, we discussed the elective subjects suitable for each field, and made a project plan. Regarding the time allocation, although the project was not integrated in the team according to the scheduled time due to other work, we still completed the final version of the project before the work deadline. In the process of cooperation, although individuals are assigned, we still discuss and guide each other when we encounter problems that we meet, and give full play to the ability of the group, in general, We had a great time working together in the group.

In terms of completing personal tasks, we pushed the parts we have completed to GitHub for version management, merge the branches to the main branch for consolidation after all parts of our own are completed, finally create a tag for backup. During the process of our cooperation, we also encountered a lot of problems. We find that Git and LaTeX are only based on theoretical learning and are still not proficient in practice. We encountered a lot of errors in using commands that took a lot of time to resolve, but together we managed to overcome them.

In terms of time allocation, although we have a lot of tasks to do this month, we still maintain a certain frequency of group meetings and jointly monitor the progress. If we are working together as a team again, each one in our group should finish individual tasks a week before the deadline, so that we can spend more time discussing and improve our project.

Finally, the way we assign is that everyone expresses what they are good at and their willingness to choose. After comparison, we decide the most suitable part, and then we work together to complete the public part of the group. Everyone fairly got the part that they compare or are best at. In this way, each member's enthusiasm is very high. Each member put forward suggestions for the latex template of the project, and participated in the writing of the project, and finally modified each other in their own git branch and merged with the main branch. This way we not only achieved version control, but also avoided risk of document being covered.

In conclusion, all members have made corresponding contributions to the project. This is a very dynamic and efficient cooperation, we look forward to the next opportunity to learn together again.

Timeline

5.30	Finalized
5.29	Make recommendations for each other in the group, and complete the contribution part
5.25	Remind all group member about project deadlines
5.23	Group work deadline, Tutorial discussion
5.20	Zoom meeting
5.13	Zoom meeting
5.07	Zoom meeting, Complete professional discussions and assign each person's area of responsibility
4.30	Create a GitHub project Dream-For-INFO-1111

5 Bibliography

Cotton - Department of Agriculture. (n.d.). Retrieved from www.agriculture.gov.au website: https://www.agriculture.gov.au/ag-farm-food/crops/cotton

Database Administrator (DBA). (2012). Retrieved from Payscale.com website: https://www.payscale.com/research/US/Job=Database_Administrator_(DBA)/Salary

Desjardins, J. (2014, November 10). The World's Most Valuable Cash Crop. Retrieved from Visual Capitalist website: https://www.visualcapitalist.com/the-worlds-most-valuable-cash-crop/

Edwards, J. (2019, August 16). Predictive analytics: Transforming data into future insights. Retrieved from CIO website: https://www.cio.com/article/3273114/what-is-predictive-analytics-transforming-data-into-future-insights.html

Gramlich, J. (2020, November 23). What the data says (and doesn't say) about crime in the United States. Retrieved from https://www.pewresearch.org/fact-tank/2020/11/20/facts-about-crime-in-the-u-s/

Hawley, J. (n.d.). Project Manager: Job Description & Average Salary. Retrieved from Investopedia website: https://www.investopedia.com/articles/wealth-management/021616/project-manager-job-description-average-salary.asp

How To Become a Business Analyst in 2021. (n.d.). Retrieved May 26, 2021, from Master's in Data Science website: https://www.mastersindatascience.org/careers/business-analyst/

Kenton, W. (2019). Chief Information Officer (CIO). Retrieved from Investopedia website: https://www.investopedia.com/terms/c/cio.asp

Miller, K. (2019, February 4). What Does a Project Manager Do? Retrieved from Northeastern University Graduate Programs website: https://www.northeastern.edu/graduate/blog/project-manager-responsibilities/

Office, P. (n.d.). Business Analytics - Interdisciplinary Studies - The University of Sydney. Retrieved May 29, 2021, from www.sydney.edu.au website: https://www.sydney.edu.au/handbooks/interdisciplinary_studies/subject_areas/subjects_ac/business_analytics.shtml

Office, P. (n.d.). Design Descriptions - Interdisciplinary Studies - The University of Sydney. Www.sydney.edu.au. Retrieved May 29, 2021, from https://www.sydney.edu.au/handbooks/interdisciplinary_studies/units_of_study/tables_dh/design_descriptions.shtml

Office, P. (n.d.). Finance Descriptions - Interdisciplinary Studies - The University of Sydney. Retrieved May 29, 2021, from www.sydney.edu.au website: https://www.sydney.edu.au/handbooks/interdisciplinary_studies/units_of_study/tables_dh/finance_descriptions.shtml

Office, P. (n.d.). Information Systems Descriptions - Interdisciplinary Studies - The University of Sydney. Www.sydney.edu.au. Retrieved May 29, 2021, from https://www.sydney.edu.au/handbooks/interdisciplinary_studies/units_of_study/tables_io/information_systems_descriptions.shtml

Poldrack, C. (n.d.). Statistical Thinking for the 21st Century. Retrieved from https://web.stanford.edu/group/poldracklab/statsthinking21/introduction.html#what-is-statistical-thinking

Richards, T. W. (1909, January 1). Modern Chemistry and Medicine. Retrieved from The Atlantic website: https://www.theatlantic.com/magazine/archive/1909/01/modern-chemistry-and-medicine/529875/

Science, F. of. (n.d.). Chemistry - Science - The University of Sydney. Retrieved May 29, 2021, from www.sydney.edu.au website: https://www.sydney.edu.au/handbooks/science/subject_areas_ae/chemistry_descriptions.shtml

Science, F. of. (n.d.). Statistics - Science - The University of Sydney. Retrieved from www.sydney.edu.au website: https://www.sydney.edu.au/handbooks/science/subject_areas_nz/statistics_descriptions.shtml

The Excitement of a Career in Statistics. (n.d.). Retrieved May 29, 2021, from stattrak.amstat.org website: https://stattrak.amstat.org/2012/01/31/excitingstatisticscareer/

The 5 Most Important Skills a Web Developer Needs | | InformIT. (n.d.). Www.informit.com. Retrieved May 29, 2021, from https://www.informit.com/articles/article.aspx?p=2186996

0 Software%20Engineer jobs in China. (n.d.). Retrieved May 29, 2021, from cn.linkedin.com website: https://www.linkedin.com/jobs/search/?currentJobId=2431581528&geoId=102890883&keywords=Software%20Engineer&location=%E4%B8%AD%E%9B%BD

0 Software%20Engineer jobs in China. (n.d.). Cn.linkedin.com. Retrieved May 29, 2021, from https://www.linkedin.com/jobs/search/?currentJobId=2529973809&geoId=102890883&keywords=Software%20Engineer&location=%E4%B8%AD%E5%9B%BD

6 business applications of predictive analytics. (n.d.). Retrieved May 29, 2021, from www.neuraldesigner.com website: https://www.neuraldesigner.com/blog/6_Applications_of_predictive_analytics_in_business_intelligence#ChurnPrevention

6 Common Uses for Computers in Healthcare - Scott Clark Medical. (2019, January 5). Retrieved from Scott-Clark Medical website: https://www.scott-clark.com/blog/6-common-uses-for-computers-in-healthcare/