

# Benedict Tiong

Curriculum Vitae



## PERSONAL DETAILS

Mail                   **benedict.cs12@nycu.edu.tw**

LinkedIn              [www.linkedin.com/in/benedict-tiong](https://www.linkedin.com/in/benedict-tiong)

## EDUCATION

### MSc. Department of Computer Science (GPA: 4.15 / 4.30)

2023 - Now

National Yang Ming Chiao Tung University

Advisor: Prof. Chien-Chao Tseng (Wireless Internet Laboratory)

- Kubernetes, CI/CD, DevOps, and Cloud-Native Technologies
- SDN, NFV, O-RAN, 5G/6G Networks

### BSc. Department of Interaction Design (GPA: 3.99 / 4.00)

2019 - 2023

National Taipei University of Technology

Advisor: Prof. Lydia Hsiao-Mei Lin

- Docker, Backend Service Development, RESTful API
- Application of Embedded Systems, Application of AI, IoT System
- Virtual Reality, Augmented Reality, Game Development

## RESEARCH INTERESTS

- Linux Networking, IT Automation, Kubernetes, CI/CD, DevOps, and Cloud-Native
- Operating System Design and Implementation, Computer Architecture, Computer System

## WORK EXPERIENCES

### SDN&NFV Teaching Assistant · Part-time · On-site

Aug 2023 - Jan 2024

Department of Computer Science, NYCU

- Virtual Infrastructure and Management - Container and Kubernetes
- SDN, NFV, ONOS, OVS, Java, Python

### Software Engineer · Intern · Hybrid

Jul 2022 - Jun 2023

IT Department, Makalot Industrial Co., Ltd.

- Develop a Robust Backend System and Automate the Service
- ASP.NET Core, Vue.js, SQL Server, Docker, Graph API, Power Automate

### Administration Assistant · Part-time · On-site

Jun 2021 - Jun 2023

Computer and Network Center, NTUT

- Assist faculty and students with troubleshooting computer and network issues
- Reinstall the operating system on a computer

### Project Engineer · Part-time · Hybrid

Jan 2022 - Jun 2022

Department of Multimedia and Game Development, MUST

- Integrating the Digital Kinesthetic Teaching Model into Parent-Child Centers
- Game Development, Unity, C#, Firebase

# **AWARDS & PROJECTS**

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## **Potential Award of XR Social Welfare Development in Vision Get Wild - 2023**

Issued by Meta XR Hub Taiwan

Developed and designed an Augmented Reality (AR) mobile app to monitor all critical manhole covers in Taipei City. The system, which integrates captivating images with local flair, encourages people to collaboratively track the aging issues of these covers and provide real-time feedback to the responsible authorities.

## **Shortlisted Cross-Disciplinary category in Vision Get Wild - 2023**

Issued by Administration for Digital Industries

A mobile app that combines tourism, cultural promotion, and urban maintenance through the innovative use of Augmented Reality (AR) in partnership with Taipei Hydraulic Engineering Office , Taipei Gorgeous Manhole Covers.

## **Best Presentation Award in Makerthon National Tournament - 2023**

Issued by Ministry of Education

Created embedded systems applications for visualizing the composting of organic matter for improved waste categorization practices in mountains areas, resulting in significant improvement in overall environmental conservation.

## **Best Value Creation Award in Makerthon Regional Tournament - 2023**

Issued by Ministry of Education

An art installation that enables hikers to observe the complete decomposition and natural transformation of organic waste into fertilizer, nourishing the entire forest ecosystem through the intricate biological processes of time and microbial activity.

## **Jury Prize (Champion) in Makerthon National Tournament - 2022**

Issued by Ministry of Education

Created and designed a embedded systems applications that integrates sensors with an app, combining traditional Taiwanese window grille aesthetics with the air purification properties of green algae. Users can check the air quality in their homes anytime by simply opening the mobile application.

## **Best Design Award in Makerthon Regional Tournament - 2022**

Issued by Ministry of Education

A filtering system inspired by the feeding behavior of nurse sharks. It enables aquatic life in rivers to swim through the filtration system, leaving behind the debris. This innovative solution effectively reduces the presence of floating debris in water bodies, ensuring a clean habitat for riverine wildlife.

## **Shortlisted Digital Entertainment category in 5G Mobliehero - 2021**

Issued by Industrial Development Administration

Designed and developed an interactive night run fitness device, incorporating the features of 5G Massive Internet of Things (IoT), electronic integration design, and real-time cloud integration with a mobile app. Targeted at the possibility of remote running during the pandemic.

## **Shortlisted AI Experiment in Intel® DevCup x OpenVINO™ Toolkit - 2021**

Issued by Intel Corporation

Training a AI model for object detection on a Raspberry Pi 4, combined with the Intel® Neural Compute Stick 2, and integrated development using the OpenVINO Toolkit. And improve room organizing experience to efficiently tidy up their space

# SCHOLARSHIPS

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- NYCU - Distinguished Overseas Chinese Student Scholarship (GPA: 4.15/4.30)
- NTUT - Presidential Award (GPA: 4.00/4.00) - 2019 Fall Semester
- NTUT - Presidential Award (GPA: 4.00/4.00) - 2020 Spring Semester
- NTUT - Presidential Award (GPA: 4.00/4.00) - 2021 Spring Semester
- NTUT - Outstanding Graduation Grade Award (Department Ranking: 2/82) - 2023
- NTUT - Most Excellent Overseas Student Graduate Award - 2023
- NTUT - Distinguished Overseas Chinese Student Scholarship - 2023
- NTUT - Distinguished Overseas Chinese Student Scholarship - 2022
- NTUT - Distinguished Overseas Chinese Student Scholarship - 2020
- NTUT - Academic Competition Excellence Award - 2022 Fall Semester
- NTUT - Academic Competition Excellence Award - 2023 Spring Semester
- NTUT - Academic Competition Excellence Award - 2023 Fall Semester

# CERTIFICATES

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- 805 Score TOEIC Listening and Reading Test issued by Educational Testing Service - 2024
- Program in Artificial Intelligence and Virtual Reality issued by NTUT - 2023
- AI-900 Microsoft Azure AI Fundamentals issued by Microsoft - 2023
- Fundamentals of Deep Learning issued by NVIDIA - 2022
- Getting Started with AI on Jetson Nano issued by NVIDIA - 2022
- Completion of Java OCP JP Training issued by Digital Governance Association - 2021



國立臺北科技大學

# National Taipei University of Technology

The President of National Taipei University of Technology,  
on the Recommendation of the Faculty, Has Conferred upon

**BENEDICT TIONG ING NGIE (張永義)**

Who Has Satisfactorily Fulfilled All Requirements for  
the Degree of

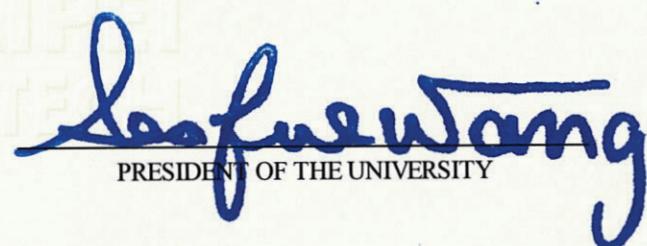
**BACHELOR OF SCIENCE**

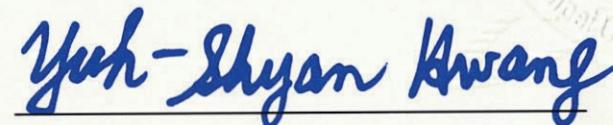
*in Interaction Design,*

*with All the Rights, Privileges, and Honors Thereunto Appertaining,  
in Witness Whereof the Seal of the University and the Signature of  
the Proper Authority Is Hereunto Affixed.*

*Given in Taipei, Taiwan, Republic of China*

*The Thirtieth of June, in the Year of Two Thousand and Twenty Three*

  
PRESIDENT OF THE UNIVERSITY

  
PROVOST OF ACADEMIC AFFAIRS

Student ID NO.108AC1033

This NVIDIA DLI Certificate has been awarded to

# Benedict Tiong Ing Ngie

for the successful completion of  
深度學習基礎理論與實踐



Will Ramey  
Senior Director, Developer Programs

March 12, 2022

## Fundamentals of Deep Learning - NVIDIA DLI

This NVIDIA DLI Certificate has been awarded to

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深度學習基礎理論與實踐



Will Ramey  
Senior Director, Developer Programs

March 12, 2022

## Getting Started with AI on Jetson Nano - NVIDIA DLI



Completion of Java OCP JP



Potential Award of XR Social Welfare Development



## 教育部獎狀

國立臺北科技大學劉芝良、張永義、黃亭中同學組成之「互動小築」隊伍參加教育部「2023年技職盃黑客松競賽」全國賽成績優異榮獲最佳簡報獎

特頒獎狀 以資鼓勵

部長潘文忠



中華民國 112 年 6 月 12 日

臺教技(三)字第 1120058061 號



## 教育部獎狀

國立臺北科技大學劉芝良、張永義、黃亭中同學組成之「互動小築」隊伍參加教育部「2023年技職盃黑客松競賽」北區分區賽成績優異榮獲最佳創造價值獎

特頒獎狀 以資鼓勵

部長潘文忠



中華民國 112 年 6 月 12 日

臺教技(三)字第 1120058061 號



## 教育部獎狀

國立臺北科技大學劉芝良、張永義、王品勻同學組成之「互動客」隊伍參加教育部「2022黑客松：技職盃全國大賽」成績優異榮獲評審團大獎

特頒獎狀 以資鼓勵

部長潘文忠



中華民國 111 年 5 月 30 日

臺教技(三)字第 1110053316 號

Best Presentation Award  
Makerthon National Tournament 2023

Best Value Creation Award  
Makerthon Regional Tournament 2023

Jury Prize (Champion)  
Makerthon National Tournament 2022



Best Design Award  
Makerthon Regional Tournament 2022



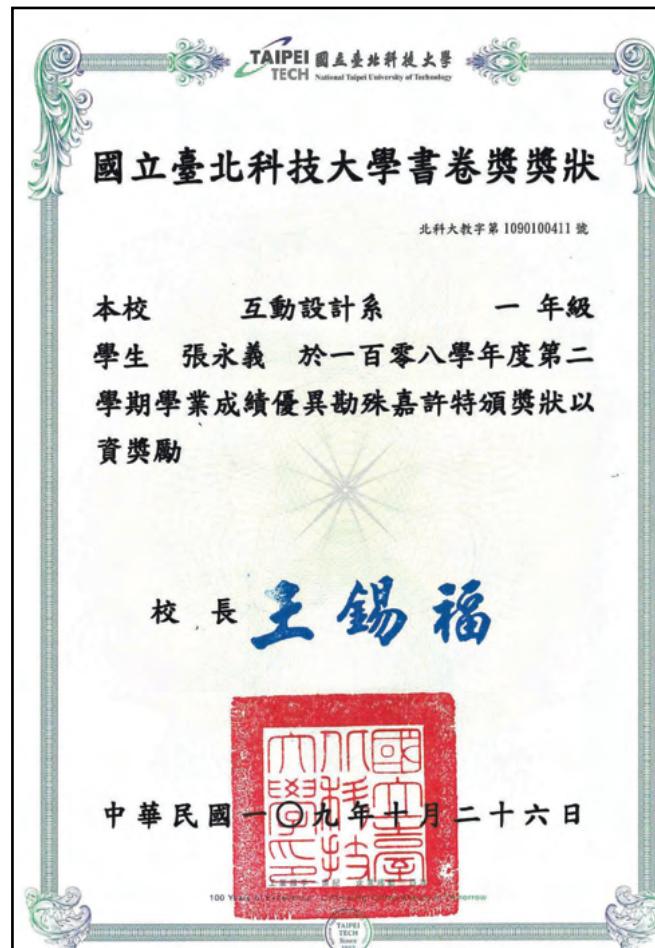
Shortlisted AI Experiment  
Intel® DevCup x OpenVINO™ Toolkit 2021



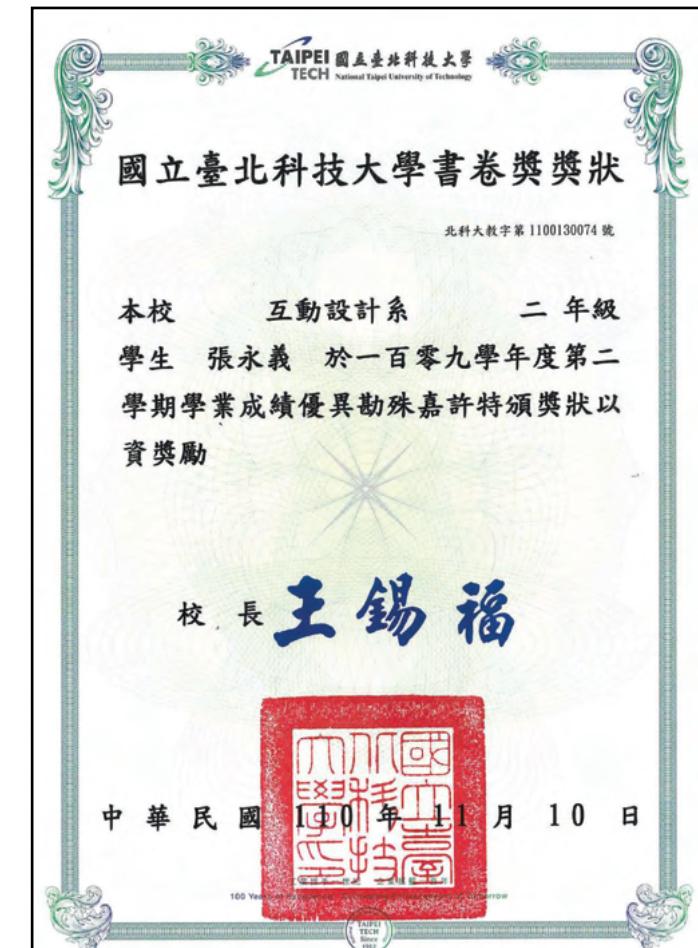
Shortlisted Digital Entertainment category  
5G Moblehero 2021



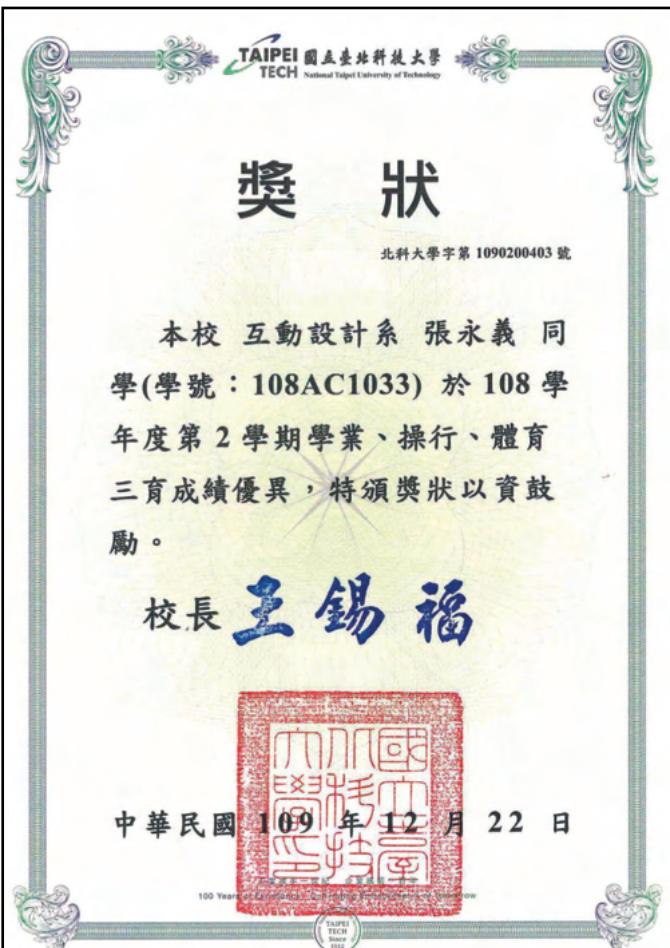
Presidential Award - 2019 Fall



Presidential Award - 2020 Spring



Presidential Award - 2021 Spring



Tri-excellence Award - 2019 Spring

Tri-excellence Award - 2020 Fall

Tri-excellence Award - 2020 Spring



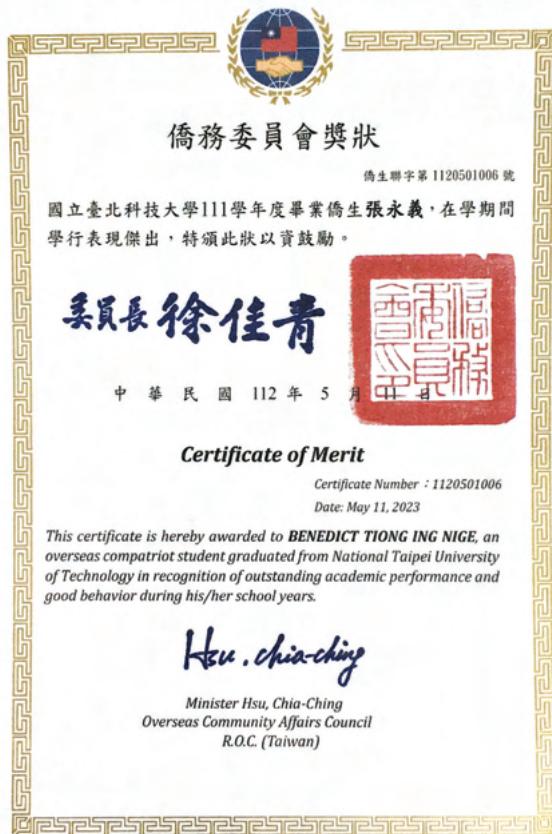
Tri-excellence Award - 2021 Fall



Outstanding Graduation Grade Award 2023



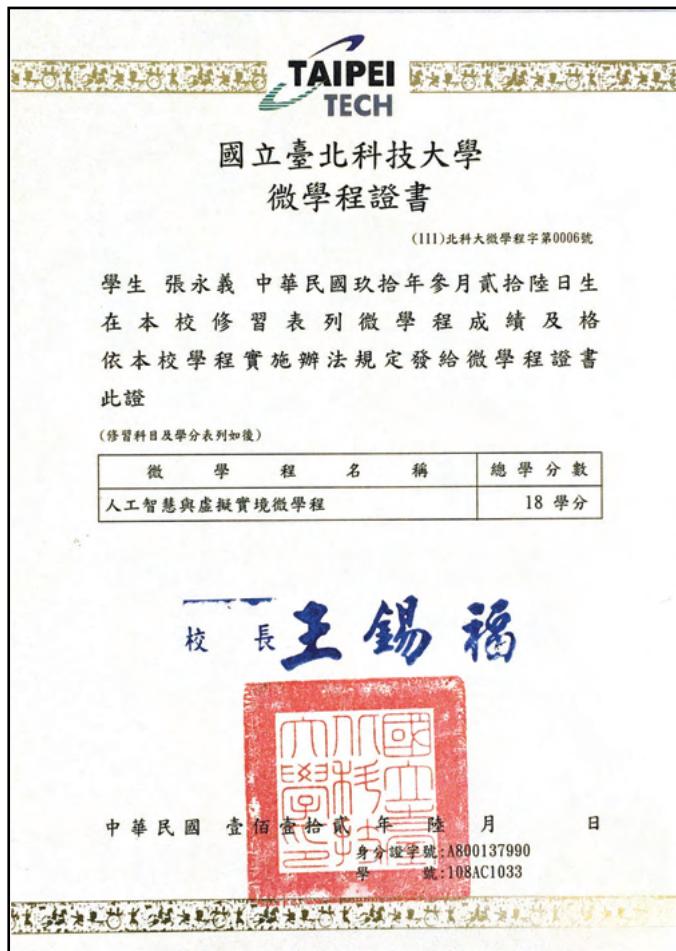
Excellent Overseas Student Graduate Award 2023



Excellent Overseas Student Award 2023

Excellent Overseas Student Award 2022

Excellent Overseas Student Award 2020



Program in Artificial Intelligence  
and Virtual Reality 2023

**Microsoft**

**考試分數報告**

**考生**

張永義  
1, Sec. 3, Zhongxiao E. Rd., Taipei 10608 Taiwan  
Taipei 10608  
benedict.cs12@mnyu.edu.tw

**考試**

AI-900: Microsoft Azure AI Fundamentals

註冊編號: 449475106  
考試參考號: 44124550  
日期: May 10, 2023  
ID: Benedict1033

**結果**

100	200	300	400	500	600	700	800	900	1000
必須達到分數									
你的分數									

**小節分析**

描述人工智慧工作負載與考量(20-25%)	83%
說明 Azure 上機器學習的基本準則(25-30%)	84%
說明 Azure 上電腦視覺工作負載的功能(15-20%)	80%
說明 Azure 上自然語言處理(NLP) 工作負載的功能(25-30%)	88%

**總分**

必須達到分數	700
你的分數	842

**結果**

合格	✓
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**CERTIPORT**

AI-900 Microsoft Azure AI Fundamentals  
Microsoft 2023

**LISTENING AND READING OFFICIAL SCORE CERTIFICATE**

**BENEDICT TIONG ING NGIE BENEDICT TIONG ING NGIE**

Name: BENEDICT TIONG ING NGIE  
Date of Birth: (yyyy/mm/dd)  
2001/03/26  
Registration Number: 24311138 Test Date: (yyyy/mm/dd)  
2024/02/25  
Individual (February 2024)

**LISTENING**

Your Score: 425

**READING**

Your Score: 380

**TOTAL SCORE**

Your Score: 805

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**TOEIC成績單查詢應用程式**

**Android版** **iOS版**

**LISTENING**

Your scaled score is between 400 and 495. Test takers who score around 400 typically have the following strengths:

- They can infer the central idea, purpose, and basic context of spoken speech acts, even when conversational responses are indirect or not many are predicted.
- They can infer the central idea, purpose, and basic context of extended spoken speech acts, even when the information is not supported by repetition or paraphrase and when it is presented in a broad range of vocabulary. They can do this even when the information is not supported by repetition or paraphrase and when it is presented in a broad range of vocabulary. They can understand details in short spoken exchanges, even when negative constructions are present, when the language is rhythmically complex, or when they can understand details in extended spoken tests, even when it is necessary to connect information across multiple sentences and when this information is not supported by repetition or paraphrase. They can understand details when the information is paraphrased or when negative constructions are present.
- To see what test takers typical of test takers who score around 400, see the "Proficiency Description Table".

**READING**

Your scaled score is between 350 and 450. Test takers who score around 350 typically have the following strengths:

- They can infer the central idea and purpose of a written text, and they can make inferences based on explicit information in the text.
- They can read for meaning. They can understand factual information, even when it is paraphrased.
- They can infer the central idea and purpose of a written text, even when the vocabulary and grammar of the text are difficult.
- They can understand medium-level vocabulary. They can sometimes understand vocabulary in context, unusual meanings of common words, and idiomatic usage.
- They can understand rule-based grammatical structures. They can also understand difficult, complex, and uncommon grammatical constructions.

To see what test takers typical of test takers who score around 350, see the "Proficiency Description Table".

If your performance is closer to 450, you should review the descriptors for test takers who score around 450.

**ABILITIES MEASURED**

ABILITY	PERCENTAGE OF ABILITY MEASURED
Can infer gist, purpose and basic context based on information that is explicitly stated in short spoken texts	71%
Can infer gist, purpose and basic context based on information that is implied or indirectly stated in short spoken texts	45%
Can understand details in short spoken texts	87%
Can understand details in extended spoken texts	85%
Can understand a speaker's purpose or implied meaning in a phrase or sentence	89%

**ABILITIES MEASURED**

ABILITY	PERCENTAGE OF ABILITY MEASURED
Can make inferences based on explicit information in written texts	28%
Can locate and understand specific information in written texts	80%
Can connect information across multiple sentences in a single written text and across texts	85%
Can understand vocabulary in written texts	53%
Can understand grammar in written texts	80%

**HOW TO READ YOUR SCORE REPORT:**

**Percent Correct of Abilities Measured:**  
For each of these abilities, answer directly on this test form for each one of the Abilities Measured. Your performance on questions testing these abilities cannot be compared to the performance of test-takers who take other forms or to your own performance on other test forms.

**Note:** TOEIC scores more than two years old cannot be reported or validated.

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TOEIC Listening and Reading Test 2024

國立教育廣播電台 | 901人追蹤 ☆追蹤

## 「2022黑客松 技職盃全國大賽」總決賽 北科大獲「評審團大獎」



國立教育廣播電台

2022年5月16日



國立臺北科技大學互動客團隊作品「綠窗花\_淨空氣的社區植栽運動」，榮獲評審團大獎



GND | 35.4k 人追蹤 ☆追蹤

## 北科大學生設計「蓋水好行」觀光App(圖)



The Central News Agency 中央通訊社

2023年5月11日



台北科技大學互動設計系學生團隊設計「蓋水好行」觀光App，透過人孔蓋上的AR互動及App圖鑑，可前往當地特色景點，與吉祥物一起達成各項成就。(北科大提供)

中央社記者許秩維傳真 112年5月11日



