

# Cheng-Tse Liu (Alex)

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## EDUCATION

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<b>University of California, Santa Cruz</b>	Santa Clara, CA
• Master of Science in Natural Language Processing(Artificial Intelligence)	<i>Sep. 2023 - Present</i>
<b>National University of Kaohsiung</b>	Kaohsiung, Taiwan
• Bachelor of Science in Information Management	<i>Sep. 2018 - Jun. 2022</i>
• GPA: 3.52/4.0, Last 60 credits: 3.8/4.0	

## PUBLICATION

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- T.-H. Yang\*, C.-Y. Wang†, H.-C. Tsai†, Y.-C. Yang† and **C.-T. Liu**, “YTLR: a web service for automatic yeast transcription factor-gene association extraction from the literature” Computational and Structural Biotechnology Journal, vol. 20, pp. 4636-4644, 2022 (SCI 2022 impact factor = 6.155, Ranking 23.6% (70/296) in Biochemistry Molecular Biology)
  - T.-H. Yang\*, C.-Y. Wang†, H.-C. Tsai†, and **C.-T. Liu**†, “Human IRES Atlas: an integrative platform for studying IRES-driven translational regulation in humans” Database, vol. 2021: article ID baab025; doi:10.1093/database/baab025, 2021. (SCI 2020 impact factor = 3.451, Ranking 24% (14/58) in Mathematical Computational Biology)

## RESEARCH EXPERIENCE

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<b>Computational Biology &amp; Intelligence System Lab, National University of Kaohsiung</b>	Kaohsiung, Taiwan
<i>Research Assistant(Advisor: DR. TZU-HSIEN YANG)</i>	<i>Jan. 2021 - Jan. 2022</i>
• Crawled data from websites and preprocessed data as Natural Language Processing (NLP) model input	
• Fine-tuned BERT models to identify the transcription factor-gene pairs association	
• Used the ROC curve analysis technique to evaluate the results of different Internal Ribosome Entry Site (IRES) prediction tools	

## TECHNICAL SKILLS

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- **Programming:**Python, Java, C, HTML/CSS, PHP, JavaScript, Flutter
  - **Database:**MySQL, phpmyadmin, FireBase, MongoDB
  - **ML Frameworks:**Keras, Pytorch, Tensorflow

## PROJECT EXPERIENCE

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<b>Capstone Project</b>	
<i>Project Manager</i>	<i>Aug. 2021 - Dec. 2021</i>
• Crawled data from bank websites and process data for database management	
• Designed and visualized the APP interface	
• Built the APP function and user interface for live updated credit card rewards	
• The project eventually got the Undergraduate research fellowship, Ministry of Science and Technology, Taiwan	
<b>Object-Oriented Programming Project I</b>	
<i>Group Leader</i>	<i>Mar. 2018 - Jun. 2018</i>
• Developed a window board game for Mahjong	
• Programmed game functions and events with Java	
• Visualized the GUI interface for the table game	
<b>Object-Oriented Programming Project II</b>	
<i>Group Leader</i>	<i>Sep. 2021 - Jan. 2021</i>
• Established a GUI interface and simulated the movement strategy in Age of Empire II	
• Utilized multiple algorithms including DFS, BFS, UCS	

## Database Management Project

Group Leader

Mar. 2020 - Jun. 2020

- Leveraged ERD, Relational Model, UML and Normalization to systematically construct databases
- Filtered data with SQL queries and presented the searching result on a website

## EXTRACURRICULAR ACTIVITY

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### National University of Kaohsiung

Kaohsiung, Taiwan

Teaching Assistant

Feb. 2021 - Jun. 2021

- Tailored the curriculum for the Object-Oriented Programming and Database Management courses
- Established lecture materials and exam questions
- Advised students with academic questions and class support

### IMPineer Community Service

Kaohsiung, Taiwan

Instructor

Dec. 2018

- Led the volunteer group to teach students how to use Excel, PowerPoint and film editing skills
- Designed and implemented project curriculum

## REFERENCE

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- **Kai Wang, Ph.D. (Information Management, National Central University)**  
Associate Professor, Department of Information Management, NUK  
700, Kaohsiung University Rd., Nanzih District, Kaohsiung 811, Taiwan, R.O.C.  
Work: +886-7-591-9781  
E-mail: kwang@nuk.edu.tw  
Relationship: **Professor at Management Information Systems Course from 09.2020 - 01.2021**
- **Tzu-Hsien Yang, Ph.D. (Electrical Engineering, National Cheng Kung University)**  
Assistant Professor, Department of BioMedical Engineering, National Cheng Kung University, Taiwan  
No. 1, Sec. 4, Roosevelt Road, Taipei, 10617 Taiwan R.O.C. No.1, University Road, Tainan City 701, Taiwan, R.O.C.  
Work: +886-6-2757575-63432  
E-mail: thyangza@gs.ncku.edu.tw  
Relationship: **Professor at the Artificial Intelligent, Deep Learning and Object Oriented Programming from 01.2019 – 06.2022, Advisor of Computational Biology & Intelligence System Lab from 01.2020 – 01.2021**
- **Ying-Feng Kuo, Ph.D. (Industrial Engineering, University of Texas at Arlington)**  
Professor, Department of Information Management, NUK  
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Relationship: **Professor at the Business Management from 09.2018 – 01.2019**