LIN, Guan-Cherng (Roger)

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EDUCATION

New York University Tandon School of Engineering   (GPA: 3.56)   **New York, United State**
Master's in Computer Science   **Sept. 2023- present**
- Courses: Artificial Intelligence, Big Data, Design & Analysis of Algorithms, Interactive Computer Graphic

The Hong Kong University of Science and Technology   (GPA: 3.47)   **Kowloon, Hong Kong**
Bachelor of Engineering in Computer Science; Minor in Business   **Sept. 2017- Nov. 2021**
- Courses: Computer Graphic, Computer Game Design, HCI, Machine Learning, Multimedia Computing, Database, Software Engineering, Operating System, Algorithms, Programming and Data Structures.
- Awards: Second Class Honors, Division I, November 2021

The State University of New York at Stony Brook (SBU) (GPA: 4.0)   **New York, United State**
Global Summer Institute   **July 2019- Aug. 2019**
- Courses: Organizational Behavior, Computer Sound Design
- Awards: Recipient of Summer Exchange Scholarship. August 2019

SKILLS

Programming: (Proficient) C/C++, Python, HTML/CSS/JavaScript; (Intermediate) Java, SQL, Lisp, Julia
System/ Tools: Git, Linux, Hadoop/Spark, Unity, Blender, UiPath, Google Analytics, Wireshark, Photoshop, Illustrator
Framework: Flask, Robotic Process Automation (RPA)

PROFESSIONAL EXPERIENCE

Institute for Information Industry (III)   **Taipei, Taiwan**
Summer Intern / Industry Control System Security Engineer (Trainee)   **June 2022-present**
- Developed Who Speaks, a cybersecurity application with ICS Security Team to identify and mitigate malicious network attacks in Operational Technology (OT) systems, which was nominated for the 2023 R&D 100 Awards.
- Researched and analyzed internet protocols and traffic. Captured and inspected thousands of raw networking packets to investigate cyber-attacks, presenting strategies to identify over 10 malicious protocols in OT systems.
- Achieved 3rd place among participants in final project presentation with investigation results, contributed to OT Cybersecurity Testing Framework and Industrial Cyber Threat Detector (ICTD) designed by ICS Security Team.

Taiwan Semiconductor Manufacturing Company (TSMC)   **Taipei, Taiwan**
Summer RD Intern at Infrastructure Communication Service Department (ICSD) **July 2020- Sept. 2020**
- Developed 3 RPA applications for automatic email senders, improving security levels with Power BI to help technicians manage the semiconductor production lines and update the OS and anti-virus applications.
- Presented RPA solutions for managing servers to reduce the possibility of cyber-attacks along with their future applications in a final project presentation. Won 4th place among all 2020 summer interns.

PROJECTS

PathAdvisor 2.0: Smart Mobility and Navigation in HKUST Campus   **Kowloon, Hong Kong**
Final year project at HKUST, Advised by Prof. Gary Shueng-Han CHAN, HKUST **June 2020- June 2021**
- Collaborated on improving HKUST's PathAdvisor indoor localization app, focusing on enhancing accuracy and data maintenance efficiency. Implemented signal fusion for precise positioning, and a smart maintenance system.
- Built a server for indoor localization and automatic fingerprint update. Improved the accuracy by 20% and solved the maintenance problem by decreasing the time needed for bi-monthly site surveys from 2 weeks to a few days.

The Witch's Hunter (2D RPG Action Game)   **Kowloon, Hong Kong**
Developer and Researcher in Game Programing at HKUST   **Feb. 2021- June 2021**
- Innovated and designed the whole concept of the game world, game narrative arcs, features, and scenarios for gameplay. Researched the methods and utilities of Game Engine, and technologies used in game development.
- Constructed several controlling systems (key-bind, skill tree, levels, etc.) and game managers using algorithms and designed a simple AI to handle different hierarchies, objects, scenes, backgrounds, and the flow of the game.

Website Project
Personal Website [[Link](#)] | Official Website of University Choir HKUST [[Link](#)] | Big Data Project for Taxi Pickup [[Link](#)]

EXTRACURRICULAR

- Engineering Student Ambassador of HKUST, School of Engineering, Mar. 2020- May 2022
- Overseas International Ambassador of Skyline, An Intl. Opportunities Platform in Taiwan, Aug. 2020- Aug. 2021
- IT Security of The University Choir, HKUST Student Union, Feb. 2019- Feb. 2020
- Online Certificates: Introduction to VR [[Coursera](#)], Google Analytic [[Google](#)]