

WEICONG (Vigelos) NING

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Education

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- University College London (UCL)** **London, UK** **09/2023 - 09/2024**
MSc Information Security
Obtained Grade: 74.9, Distinction
Core Curriculum: Research in Information Security, Cryptography
Privacy Enhancing Technologies, Computer Security
 - Communication University of China** **Beijing, China** **09/2019 - 06/2023**
BEng Computer Science and Technology
Grade: 3.81/4(GPA) 1/43(Rank)
Core Curriculum: Machine Learning, Artificial Intelligence, Software Engineering
Data Structure, Principles and Applications of Database

Research Experience

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- Innovations on Visual Relation Grounding** **07/2023 - 09/2023**
Supervised by: Junbin Xiao, NUS
Focus:
 - Improve the accuracy of relation prediction based on video content.
 - Adapt new methods (e.g. Transformer, LLM) to this task.**Result:** Achieved the highest accuracy on VIDVRD dataset (till 09/2023).
 - Effect of adding random noise on Computer Vision models** **12/2021 - 03/2022**
Supervised by: Xi Wang, Chinese Academy of Science
Focus:
 - Add random noise during training CV models and check the results.
 - Reason about effect of different types of noise on different models.**Result:** Concluded that adding random noise to the intermedium outputs inside a network can only result in a subtle increase in the performance of models.

Thesis

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- Hunting Security Vulnerabilities in SNARKs | Thesis for MSc (Ongoing)** **06/2024 - 09/2024**
Supervised by: DR Philipp Jovanovic, UCL
Contributions:
 - Scanned smart contracts in the first 20M Ethereum blocks.
 - Discovered that most Groth16 contracts are vulnerable.
 - Developed the first tool to detect a type of vulnerability
 - Research on Video Question Answering Tasks | Thesis for BEng** **03/2023 - 06/2023**
Supervised by: Xianglin Huang, Communication University of China
Contributions:
 - Integrated CLIP model for video representation learning.
 - Reached the accuracy 0.89% less than that of the SOTA model.
 - Our model used only 3.3% of the data.

Prize and Award

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- DEDAO Scholarship in Communication University of China, 2021
 - Honourable Mention in COMAP's Interdisciplinary Contest in Modeling (ICM), 2022
 - Third Prize in China International "Internet Plus" Innovation and Entrepreneurship Competition, 2022
 - Third Prize in the Blue Bridge Cup Program Design Competition, 2022
 - The Second-Class Scholarship in Communication University of China, 2023

Programming Skills

Python(Pytorch), C/C++, Java, Shell, Amd64 Assembly, MATLAB

Test & Grade

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- IELTS (03/2023):** 7.5 (Writing: 6.5 Speaking: 6.5 Reading: 7.5 Listening: 8.5)
 - GRE (10/2022):** Verbal: 150 Quantitative: 165 Writing: 3.0