

Cui Chi

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EDUCATION

National University of Singapore, Singapore

Master of Computing, AI Specialization

08/2022-01/2024

GPA: 4.5/5.0

Zhejiang University, China

Bachelor of Information Security

09/2018-06/2022

GPA: 3.8/4.0

– Outstanding graduate

– Third-class Scholarship of Zhejiang University (2019-2020 & 2020-2021)

RESEARCH EXPERIENCE

Automated Phishing Detection Using Deep Learning

Research Assistant

NUS-NCS Joint Laboratory for Cyber Security

02/2023-Present

– Responsible for the computer vision part of the project, designed new data augmentation methods to improve the performance for the image recognition

Security Solution Based on Smart Contracts

Research Assistant

Singapore Blockchain Innovation Programme

10/2022-01/2023

– Applied deep learning to anomaly detection in smart contracts and designed a word embedding process to convert event logs into numerical vectors

– Managed data cleaning and preprocessing, decoded the logs of smart contracts, and categorized them

– Migrated an automatic vulnerability detection system for source code to the Solana project

Injection attacks targeted at sensors

Undergraduate thesis

School of Cyber Space and Technology

10/2021-06/2022

– Executed EMI injection attacks on the amplifiers of wireless sensors, inducing a maximum deviation of 3 degrees in infrared thermometer readings, showcasing the vulnerability of such systems

– Assessed the impact of the attacks, tested the effects of different scenarios and obstructions on the effectiveness of the attack

COURSE PROJECTS

Road Sign Recognition Based on OCR

Final project of Neural Network and Deep Learning

10/2022-12/2022

– Replicated the CTPN text detection algorithm, using CNN and LSTM, to effectively detect horizontally distributed text in complex environments

– Applied a CTC-based OCR decoding algorithm for text recognition, successfully converting images into text with a high accuracy.

Attacked HarmonyOS under the ARM architecture

Final project of Software Security

04/2021-06/2021

– Wrote shellcode, and performed ROP and heap attacks on the system

– Exploited format string vulnerabilities and buffer overflows to inject attack code into programs, hijacked control flow, and gained kernel-level privileges

INTERNSHIP

ByteDance

iOS Client Software Development Internship

04/2021-10/2021

– Completed the iOS client architecture design and development with high quality based on product requirements

– Assisted in the development of the company's online classroom CoreDemo, and independently complete several modules

SKILLS

Languages: Native Speaker of Chinese; Fluent in English (IELTS-7.0)

Computing: C/C++(Proficient), Python(Proficient), Objective-C(Proficient), Rust(Intermediate)