

(PAUL) YI WON CHUNG

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RESEARCH INTERESTS

Operating Systems, Cybersecurity, Artificial Intelligence, Machine Learning,
Networking, Cloud Computing, Cryptography

EDUCATION

University of Wisconsin-Madison, Madison, WI	2020 – Present
B.S. Student in Computer Sciences, Honors Candidate in Liberal Arts	GPA: 4.0/4.0
Neung-In High School, Daegu, Republic of Korea	2017 - 2020
High School Degree in STEM	
Vice President of Class of 2020 Student Council	

RESEARCH EXPERIENCE

Zero-day Vulnerability Analysis and Exploitation

CISC-W', 2019

- Collaboratively analyzed the risk factor of CVE-2019-0708 (Bluekeep) RDP vulnerability on traditional embedded systems
- Designed a Python PoC script that enables to acquire administrative control of the vulnerable system by sending target-specific payloads
- Poster presented as the primary author at the conference

Voice-based Interactive Chatbot

Neung-In Scholarly Awards, 2018

- Used Django library of Python to design a script-based school information chatbot server
- Used BeautifulSoup4 library to parse lunch and timeline information from school web
- Serviced the API on Google Assistant platform
- Deployed the project on Digitalocean instance

Neural Implanted Robotic Arms

Kyungpook National University R&E Program, 2018

- Analyzed the current progress on the neural implant technology
- Wrote a script using Python and Raspberry Pi to emulate and determine the rooms for improvement in current robotic arms to increase the similarity with human body parts.

Efficiency of Deploying VDI in Public-School Systems of Korea

Neung-In Scholarly Awards, 2017

- Analyzed the efficiency of implementing Virtual Desktop Infrastructure in Korean public-school systems

PUBLICATIONS

- [1] **Yi Won Chung**, Tae Gyeom Heo. Exploitation of RDP Bluekeep on Embedded Systems and Possible Mitigations. *Proceedings of the Conference on Information Security and Cryptography-Winter, 2019.*

HONORS AND AWARDS

- 5th Place, Korea Ministry of Education National Teen Cybersecurity Competition, 2019
- Best Research Award, Neung-In Scholarly Awards, 2018
- 2nd Place, Kyungpook National University R&E Competition, 2017
- Student of the Year, Korea Ministry of Education Infosec Institute, 2016 - 2019
- Outstanding Academic Achievement, Korean National Honors Society, 2017 – 2019
- Best Community Service Member, DOVOL Community Service Org. 2016 - 2019