

# Jackson Runtian Ye

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## Education

### Rutgers, The State University of New Jersey

New Brunswick, NJ

- Bachelor of Science in Electrical and Computer Engineering (Honors College)
- Ph.D. in Electrical and Computer Engineering (Advised by Prof. Alexandre V. Morozov)
  - Research interests: Generative AI Application, Remote Sensing, Symbolic Learning

May, 2021

Expected Fall 2027

## Research Experience

### Rutgers, The State University of New Jersey

New Brunswick, NJ

*Undergraduate Research Assistant with Professor Yingying Chen*

Sep, 2021 - May, 2022

- Participate in research and development in the areas of machine learning and signal processing
- Conduct experiments on voice assistant systems to investigate the relationship between the audio domain and the vibration domain
- Software development for experimental usages

*Undergraduate Research Assistant with Professor Shiqing Ma*

Jul, 2021 - Apr, 2022

- Design and develop benchmarks to test Linux Kernel and software behaviors
- Conduct research on various system auditing techniques based on Transparent Computing Project by DARPA
- Build a specific audit policy and environment for testing purposes
- Develop and modify the Linux kernel module to improve Linux audit performance
- Customize eBPF and BCC application to retrieve system signals for Linux system behavior prediction powered by classic machine learning technique

### University of Science and Technology of China

Hefei, China

*Research Assistant with Professor Fan Jiang*

Summer, 2020

- Conducted research and code analysis on data-network packet analyzer tcpdump
- Conducted detailed reverse engineering studies about malicious code and malware

## Career

### Rutgers, The State University of New Jersey

New Brunswick, NJ

*Teaching Assistant*

Spring 2023

- Able to effectively manage large groups of students. Committed to individual excellence and supporting each student in the way that helps them meet their learning objectives.

### Creek Information and Technology

Shanghai, China

*Founder*

May, 2020 - Jun, 2021

- Provided strong leadership and effective interdepartmental communication to effectively meet or exceed all project timelines and budgetary goals
- Understood core business processes and identified technologies to support and enhance operations

### Huami

Hefei, China

*Information Technology Internship*

May, 2017 - Aug, 2017

- Assisted end-users with hardware and software configuration, setup, and troubleshooting
- Performed Level 1 and minor Level 2 technical support consistently resolving users' issues
- Conducted technology inventory management to maintain workflow

### FLYTEK Co., Ltd

Hefei, China

*President's Office Assistant Internship*

Summer 2015

- Worked under the Office of the CTO to develop organizational systems for contracts, records, reports, and agendas.
- Drafted meeting agendas, supplied advance materials, and executed follow-up for meetings and team conferences.
- Verified operation of office equipment by completing preventive maintenance requirements and calling for repairs.

## Merits

- Rutgers SAS Excellence Fellowship
- Columbia CS3 Streetscape Validate Accelerator Programe
- Eligible for NSF Foundation I-Corp Grant (Upon Program Completion)

## Projects

- Population Estimation with Object Centric Vision Transformer State Space Model
- Physical Law Inference with Symbolic Learning
- Built a Kubernetes pen-testing lab with Docker for Graduation Capstone
- Finished 41 machines in the PWK (Offensive Security) Lab
- Translate Metasploit Ruby code to stand-alone Python Scripts
- Constantly practice on HackTheBox platform

## Language & Skills

- Skilled with Metasploit Framework and Virtualization Environment
- Writing scripts and tools to aid in the penetration testing process, cross-compiling and modifying public exploit code
- Familiar with route network traffic systems: OpenWRT, and RouterOS
- C++, Python, Shell Script, Java, MatLab, LaTeX, HTML, CSS