

JUI-CHENG TENG

📞 +886 912913399 rogerdeng92@gmail.com 🏠 Taoyuan, TW
🌐 [in/rogerdeng](#) 🐙 [github/DengRoger](#) 🏠 [home/rogerdeng](#)

Education

Major in Computer Science (Ming Chuan University)

2021-2025

Skills

- Programming Languages: Python, C/C++, Golang, Shell Script, SQL.
- Experienced in Git, Docker, Terraform, Elasticsearch, Kibana, UNIX-like systems.
- Skills in Database Optimization: experience with Redis.

Projects

HomeLab

2021

- Engineered a comprehensive HomeLab setup leveraging Proxmox for virtualization, incorporating DNS, mail, web servers, and LDAP for efficient user and permissions management. Enhanced functionality includes NFS server integration for effective server disk allocation. Advanced setup with PCI passthrough technology enables direct GPU resource access for VMs.

Personal Website

2021

- I run a professional development blog at [rogerdeng.net](#), where I post detailed articles and guides on system administration, network setup, and software development. The site acts as a knowledge base and platform for sharing with the tech community. - [website](#)

Vue-Laravel

2023

- Developed small projects using the Vue.js framework, including a calendar app and a URL shortening service. The URL shortener leverages Laravel and encoding techniques for URL compression. - [url-shorten-backend](#) - [url-shorten-frontend](#) - [calendar](#)

MCU-IS

2023

- Optimized the School's Course Enrollment System by using Vue.js and web scraping. The system has over a thousand active users. - [website](#)

Dcard Internship Application

2024

- Designed and optimized a high-load database system using Redis and PostgreSQL.
- Implemented Redis caching to handle personal lists, improving throughput by checking and updating list keys dynamically.
- Utilized PostgreSQL's List data structure and lazy-loading techniques to serve data efficiently under heavy traffic, ensuring high performance during simultaneous user requests. - [github](#)

CPE

2024

- Currently employed at the ARPing Laboratory within the university, where I am taking over the maintenance and management of the CPE registration system, ensuring its efficient operation and user accessibility. - [website](#)

National Yang Ming Chiao Tung University Administrative System Research

2024

- Collaborated on research and development of the university's administrative system with Chen Chi-Yuan.
- Configured and managed Elasticsearch ILM policies, integrated Logstash for data retention, and optimized data queries. Implemented Filebeat for log forwarding and set up Kibana for visualization of administrative data. - [hackmd](#)

NASA-Judge

2024

- Collaborated on developing nasa-judge, an automated evaluation system where TAs upload playbooks with tests (e.g., ping, dig), managed by topological sorting to handle dependencies; each user is assigned a VRF for isolated environments, with playbooks compressed into container images, stored in Harbor, and evaluated in Kubernetes using WireGuard (WG) connections, with grading automated via status codes and Google account integration to allow both internal and external students to use the system for learning and evaluation. - [github](#)

Club

SDC Club

2023

- Served as a consultant, providing expertise and assistance in server management.
- In the SDC club with the NYCU-ME dev team, I contributed to the development of an email login feature and utilized Pylint to optimize the code structure for our project, a free 3rd-level domain provider designed for both production and testing environments. - [github](#)

Work Experience

Part-time Work in W.S Security Co., Ltd.

Taiwan, TW 2024

- Developed and implemented a bank alert transmission system triggered by honeypots, with APIs for administrators to create customer profiles and configure groups for handling security alerts. The system directly transmits and executes commands in the bank's internal system based on alert status.
- Created a packet capture system with custom APIs to allow users to query data based on specific criteria such as time ranges, destination IP, and source IP, with real-time stream output to the front end.

Co-Founder of Straitport Ltd.

Taiwan, TW 2023-2024

- Collaborated on a VPS service project using libvirt, enabling the creation and management of virtual machines (VMs). Developed Python3 classes to dynamically generate XML files to configure VMs, integrating cloud-init functionality to allow users to set their own accounts, passwords, and other custom configurations. Implemented network speed rate limiting features within the VM setup to control bandwidth usage per user.
- Built a secure LDAP infrastructure with TLS and other foundational security protections, ensuring secure communication and efficient data management.
- Integrated Golang with the LDAP server to facilitate Single Sign-On (SSO) functionality, Developed user management features such as user creation, sending password reset emails, and email-based account verification for authentication.
- Created a DHCP server using Golang, connected to a database, to dynamically issue network configuration details (router IP, DNS IP) to machines based on their specific network requirements.
- Assisted in setting up all virtual machines (VMs) for the National Yang Ming Chiao Tung University Network Administration (NA) course final project.
- Developed a commodity management system, now purchased by the SDC club, allowing sellers to upload products, mark them as sold out (archived), manage product availability, and change the website name as needed.

Awards in Algorithm Competitions

CPE

Taiwan, TW 2023

- CPE 3.9%

ICPC Asia Pacific Championship

Hanoi, Vietnam 02/2024

- Qualified for the ICPC Asia Pacific Championship in 2024.

ICPC Asia Taiwan Regional

Taiwan, TW 2021-2024

- Bronze Award for the ICPC Asia Taiwan Regional Contest.

NCPU and PUPC

Taiwan, TW 2021-2024

- Copper in the 2021 National Contest for Private Universities.
- Silver in the 2022 and 2023 National Contest for Private Universities.
- First place in the 2024 National Contest for Private Universities.

Intercollegiate Competitive Programming Team Competition

Taiwan, TW 2021-2024

- 1st place in the 2021 Ming Chuan University Programming Contest.