Student Assistant for IT Administration

The System Security Lab researches the security of computer and network systems. Our team of researchers specializes in designing secure systems, identifying vulnerabilities, and developing countermeasures. We create advanced security architectures and trusted infrastructures, addressing both hardware and software aspects of physical cybersecurity. Our research also extends to cutting-edge fields such as artificial intelligence, the Internet of Things, and applied cryptography.

This work necessitates a robust and diverse IT infrastructure, including regular servers (file servers, DNS servers, mail servers, websites, DMZs), but also research-related systems such as high-performance GPU servers for advanced AI research or small IoT networks that are intentionally infected with malware and require effective isolation.

Tasks

We seek a student assistant to support our team with these tasks. Based on your skills and interests, your responsibilities may include:

- Administration of high-performance Linux servers (both software and hardware)
- Managing the group's network infrastructure, including gateways, firewalls, distributed WiFi infrastructure, VPN, and a DMZ
- Support the setup of real-world demos showing the newest research results, such as DeepFake detection or IoT intrusion detection systems
- Overseeing essential services, such as a DNS server, virtual machines, mail servers, and Docker images
- Support with selecting and ordering equipment (laboratory equipment, desktop and server hardware, network infrastructure)

Your Qualifications

We expect the following skills:

- Proficiency in Linux and command-line interfaces
- Familiarity with PC hardware
- Experience in at least one scripting language, such as Python, Perl, or Bash
- Strong English language skills
- Reliable and independent work ethic, along with a willingness to learn and take initiative
- Beneficial: Solid understanding of networking concepts (TCP/IP, firewalls, routing, DNS)
- Beneficial: Knowledge of web and mail servers, such as Apache, Postfix, and Qmail

Contact Information

If you are passionate about IT and eager to contribute to cutting-edge research, contact us via info@trust.tu-darmstadt.de. Include a brief overview of your academic background and a transcript of records.