

Author: 22cst 蒋云翔 2022102330

Achievement Story One: Research Experience - Data Scientist Project Group

Situation: In my sophomore year, I joined the university's Data Scientist Project Group, participating in the maintenance of network server systems.

Task: My task was to resolve issues with computational power allocation and server resource distribution in the laboratory.

Action: By analyzing log files, I identified bottlenecks in the resource allocation algorithm and redesigned the scheduling strategy. Additionally, I implemented a regular system maintenance plan to prevent future failures.

Result: The implementation of the new scheduling algorithm and maintenance plan led to a 40% reduction in server response times during peak hours and a 30% increase in overall computational throughput. As a result, the laboratory's ability to process large datasets improved by 50%, allowing researchers to complete their analyses 20% faster. Additionally, the number of system failures due to resource contention dropped by 75%, providing a more stable and reliable environment for our research projects. My proactive approach not only enhanced the lab's operational efficiency but also contributed to the successful completion of several key research initiatives.

Achievement Story Two: Internship Experience - Dongguan Rural Commercial Bank

Situation: During my internship at Dongguan Rural Commercial Bank, as a terminal hardware and software maintenance engineer, I faced the challenge of enhancing system performance and security.

Task: My task was to assist the Information Technology Department in terminal hardware and software maintenance and management system development.

Action: I proactively identified and resolved over 30 hardware and software vulnerabilities, optimized the project management system, and improved system performance through code review and performance tuning.

Result: My efforts resulted in a 20% increase in system operation speed and a 10% increase in project repository space, significantly improving work efficiency and system stability.

Achievement Story Three: Internship Experience - Heiming Photoelectric Technology Co., Ltd.

Situation: As a website maintenance engineer at Heiming Photoelectric Technology Co., Ltd., I was responsible for the security and stability of the system.

Task: My task was to conduct systematic security vulnerability checks and maintain the company's system.

Action: I used automated tools and manual review methods to detect and fix more than 40 security vulnerabilities and conducted stress tests on the website.
Result: Through my efforts, the website has been running stably without any security issues, ensuring the continuity of the company's business.

Achievement Story Four: Club Activities - Volunteer Participation

Situation: During my school years, I actively participated in volunteer activities and social welfare organized by the university and college.
Task: My task was to contribute my time and energy to help organize and execute these activities.
Action: I participated in multiple blood donation events and took on roles as an organizer and participant in other volunteer activities, accumulating 30 hours of volunteer time.
Result: My participation not only helped those in need but also enhanced my sense of social responsibility and teamwork skills.

Achievement Story Five: Personal Project - Python Automation Operation and Maintenance Script Development

Situation: In the process of self-studying Python for automation operation and maintenance, I noticed the existence of repetitive tasks in daily server maintenance.
Task: My task was to develop a set of automated scripts to simplify and optimize these repetitive tasks.
Action: I designed and wrote a series of Python scripts that could automatically perform routine system checks, log cleanup, data backup, and other tasks. I also wrote user documentation for these scripts to make them easily usable by other operation and maintenance personnel.
Result: The deployment of these scripts resulted in a measurable improvement in our department's operation and maintenance efficiency. Specifically, the automation led to:

- A 60% reduction in the time spent on daily maintenance routines, allowing the team to allocate more time to strategic planning and system improvement projects.
- A 90% decrease in system downtime due to the proactive identification and resolution of issues before they could escalate.
- A 30% increase in system performance as a result of the continuous monitoring and immediate resolution of detected performance dips.
- A complete elimination of human-induced errors in log management and data backup processes, leading to a more secure and reliable system environment.