

William Paterson University of New Jersey
Department of Computer Science
Internship Application (CS3950 / CS4950)

Part I

Please select the internship course # and enter the number of credits (1-3) for CS4950:

_____ CS3950 (Computer Information Systems)

_____ CS4950 (Computer Science) Number of Credits: _____

Please select the semester in which the internship will be completed and enter the year:

Fall _____ Spring _____ Summer _____

Internship starting date: _____ Ending date: _____

Total number of hours for Internship _____

Part II (*student's information*)

Student Name _____

Student ID 855# _____

WPU Student Email Address _____

GPA: _____

CS/CIT Courses completed so far: _____

Part III (*information about the company where the internship will be completed*)

Name of Company _____

Address: _____

Name of the department in which the internship will be conducted (if applicable):

Name of Internship Supervisor _____

Position of Supervisor _____

Supervisor's Phone # _____ Email _____

Part IV Information about the company

(to be completed by the internship supervisor on a separate sheet of paper)

Note: refer to the next two pages for an example.

Part V Object of the internship

(to be completed by the internship supervisor on a separate sheet of paper)

The **object of the internship** is a brief statement that describes what will be accomplished during the internship.

Note: refer to the next two pages for an example.

Part VI Knowledge and skills required to start the internship

(to be completed by the internship supervisor on a separate sheet of paper)

Note: refer to the next two pages for an example.

Part VII Learning objectives

(to be completed by the internship supervisor on a separate sheet of paper)

Learning objectives are brief statements that describe the knowledge, skills, and behaviors that a student will acquire as a result of completing the internship.

Note: refer to the next two pages for an example.

Part VIII Learning outcomes

(to be completed by the internship supervisor on a separate sheet of paper)

Learning Outcomes are brief statements that describe what a student is expected to know and be able to do by the time he/she completes the internship. Learning outcomes are in general related to the learning objectives.

Note: refer to the next two pages for an example.

Example 1 (CS4950)

Part IV Information about the company

XYZ, the global business and financial information and news leader, gives influential decision makers a critical edge by connecting them to a dynamic network of information, people and ideas. XYZ's enterprise solutions build on the company's core strength, leveraging technology to allow customers to access, integrate, distribute and manage data and information across organizations more efficiently and effectively. The company provides data, news and analytics to decision makers in industries beyond finance. Headquartered in New York, XYZ employs nearly 19,000 people in 192 locations around the world.

Part V Object of the internship

XYZ software engineers develop impactful solutions to complex, real-world problems. This is no different for our interns. Engineering interns take ownership of their projects under the mentorship of full-time software engineers. We are looking for top computer science students who are passionate about technology and eager to learn in our high energy, fast-paced environment.

As an intern, you'll become an expert on the XYZ Terminal and gain a deeper understanding of technology and finance. In addition to your projects, you'll participate in coding challenges, attend tech talks and network with other interns.

Part VI Knowledge and skills required to start the internship

- Have a deep understanding of data structures and algorithms.
- Be an excellent problem solver.
- Have programming experience in C, C++, Java or Python.
- Be working toward a BA, BS, or MS in Computer Science.

Part VII Learning objectives

1. To become an expert on the XYZ Terminal and gain a deeper understanding of technology and finance.
2. To gain expertise in coding based on project specifications.
3. To take ownership of projects under the guidance of your mentor.
4. To be a collaborative member of a team.

Part VIII Learning outcomes

At the end of the internship, our interns should be able to do the following:

1. Write programs based on project specifications
2. Write programs that manipulate data in a linked list, stack, or a priority queue.
3. Write programs that use the XYZ terminal framework.
4. Write programs that interface with databases.
5. Work effectively as a member of a team of software engineers.

Example 2 (CS3950)

Part IV Information about the company

XYZ Corporation is a leading technology innovator, solving customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. XYZ supports customers in about 100 countries and has approximately \$7.5 billion in annual revenue and 21,000 employees worldwide. The company is organized into four business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems and Critical Networks. Its headquarter is located in Wayne New Jersey.

Part V Object of the internship

The work our interns do is treated as the work any full time employee would do and is held to that standard. Our Junior System Administration interns are granted Secret Security clearance with the trust and expectation that they will uphold our company's code of ethics, United States law, and aspire to be a contributing member of our team. Some of the work that an intern on our IT team will do are as follows:

- Implement, install, configure, monitor, troubleshoots, and evaluates existing and new Microsoft Windows server operating systems on our classified network.
- Create PowerShell scripts to organize, backup, and deploy software over a large network.
- Complete tasks in a timely fashion to keep projects moving along smoothly.
- Work with our engineers to maintain and upgrade various lab equipment, computers, and software.
- Regularly confers with database programmers, analysts, and other system administrators regarding current and prospective system changes and needs.
- Work with Active Directory and Altiris Deployment Systems to clone, deploy, and image machines over our classified network

Part VI Knowledge and skills required to start the internship

- A course in system administration and networking with a minimum grade of B.
- Be working toward a BA, BS, or MS in Computer Information Technology.

Part VII Learning objectives

To perform this and future jobs successfully, our interns must be able to perform each essential duty satisfactorily. By fostering a professional environment where expectations are high, we allow the growth of knowledge, skill, and ability that is required in any future employment at XYZ or elsewhere. Below is what we want our interns to learn:

1. Learn multiple System Administration concepts that will benefit future professional endeavors.
2. Foster independent work ethic for tackling tasks effectively.
3. Obtain advanced knowledge pertaining to system administration.
4. Gain adept knowledge in Powershell Scripting to create meaningful scripts to maximize work effort.
5. Learn how to use the industry standard software tools that most companies employ in order to prepare them for future positions.

Part VIII Learning outcomes

To fully ensure that our internship has benefited the student, we will evaluate their efforts based on their ability to tackle tasks and challenges. We want our interns to be able to work effectively and independently to maximize performance and minimize errors. To make sure that all learning outcomes are achieved, their supervisor will contact any engineers and developers the intern has worked with and review any program or script created by them.

Interns' performance will be graded based on their ability to work with our systems, the effectiveness of using their time while working on tasks, and the feedback on their performance from employees outside of the Information Technology department.

More specifically, our interns should be able to do the following by the time they complete the program:

1. Write Powershell Scripts for automating their own work load and the work loads of others.
2. Create batch files and command line scripts to automate mass software installs.
3. Use Altiris Deployments Systems to manage scripts and push them out over our classified network.
4. Use Active Directory to manage users and machine privileges.
5. Work with engineers in other departments without supervision to resolve issues.
6. Minimize time invested into tasks in order to be able to achieve multiple goals in a day.