

# FSU Computer Science Department

## Systems Group Student Employment Application

The Systems Group is responsible for the maintenance of the Computer Science Department's network, servers, labs, and desktop computers. We are looking for curious, dedicated individuals with an aptitude for technical problem-solving. Along with this application, attach a brief résumé with your educational background and work history.

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First (Given) Name: \_\_\_\_\_ Last (Family) Name: \_\_\_\_\_

Application for Year: \_\_\_\_\_ Semester:    Fall        Spring        Summer

Student Status:    Freshman    Sophomore    Junior        Senior        Master's    Ph.D.        Other

Degree Program: \_\_\_\_\_ On the TA list:    N        Y  
*(grads only)*

CS Employment:    Never        Current Employee        Worked Previously

E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

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**Instructions:** Provide responses to at least five of the scenarios presented below. The questions are vague (like real life!), and there isn't necessarily one "correct" answer: the intention is to discover how you approach a problem. If the question doesn't provide enough information, what more do you need to know? How would you go about getting that data? Feel free to look up any information unfamiliar to you.

A user calls to say that "the internet is not working" on his wired desktop. You are sent to investigate the issue. How would you attempt to diagnose the problem?

The CS e-mail system is configured to allow computers inside the department to send mail to anyone else, inside or outside the network; but from outside the department, mail can only be sent in, not to other people outside the CS department. What might need to change to allow external CS users to send mail anywhere?

A graduate student is working on a thesis project, and she wants to know how best to backup the data stored on her personal server. What might you suggest? What more would you want to know to help her decide?

CS students are in a course learning to write their own implementations of a UNIX shell program. You are to advise the students on how they can limit their resource usage during testing so that unintentional “fork bombs” won’t cripple the system. What should they do to set limits and recover from a misbehaving shell?

You are planning to install a new Linux OS on your laptop computer, and you have a choice of startup systems: traditional `init` or `systemd`. What are your considerations? Which do you choose, and why?

A student complains that he can no longer create files in his home directory under Windows or Linux. What may be the problem, and how could it be corrected?

What features of a web Content Management System would you consider important in evaluating its suitability for managing the CS department website? Which CMS might *you* choose, and why?

By my signature, I certify that I am a degree-seeking student in the FSU Computer Science Department, and the responses I have provided above are my own. (International students without a valid U.S. Social Security card must apply for one immediately upon receiving an offer of employment. Your signature asserts that you agree to do this.)

Signature: