Welcome to

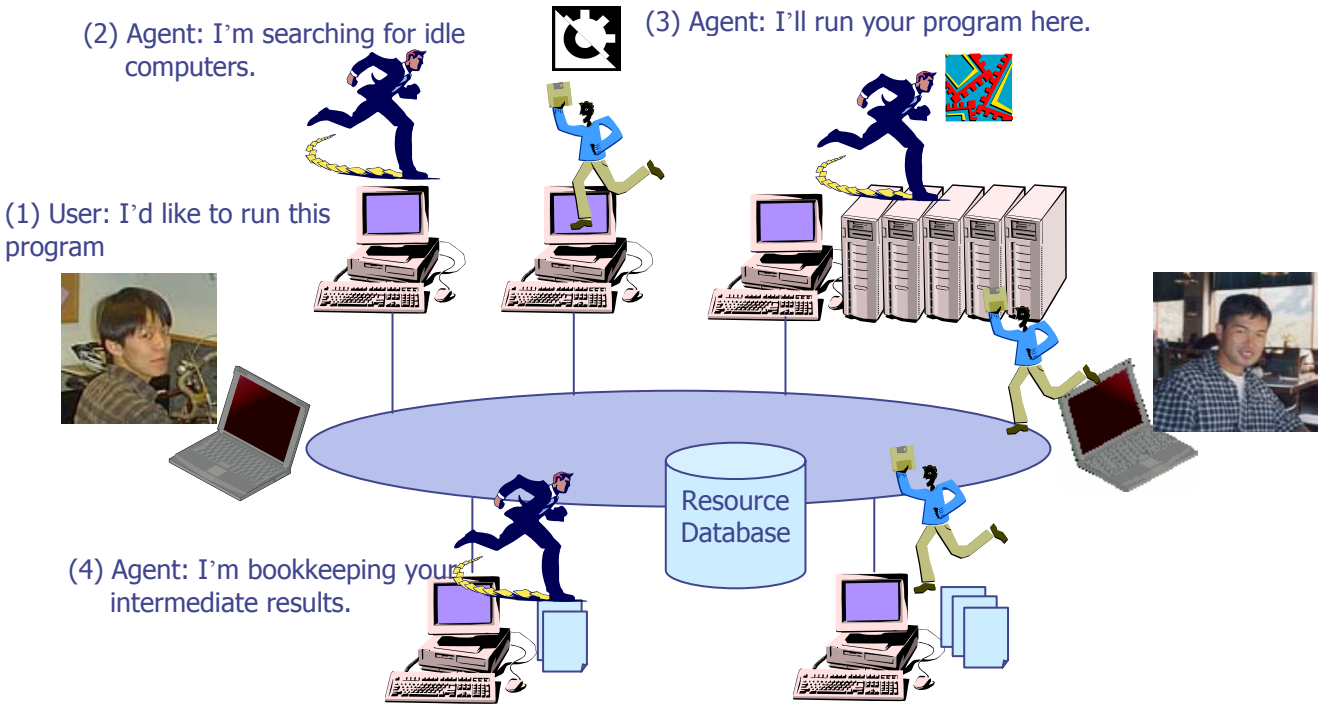
Distributed Systems Laboratory

at

UW1-302: Center for Integrated Teaching, Learning, and Scholarship

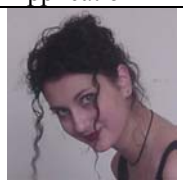
1. Project Overview

The Distributed Systems Laboratory (DSL) has been devoted to research, development, and practical use of mobile agents that are programs carrying their live data with them and autonomously migrating over network. Funded by NSF Middleware Initiative, we are currently developing the AgentTeamwrok system, a mobile-agent-based grid-computing middleware that benefits remote computer users who hope to mutually offer their desktop computing resource to Internet group members while their computer is left unattended. Each mobile agent represents a client user, carries his/her job request, searches for resources available for the request, executes the job at suitable computers, and migrates it to others when the current one has become unavailable for use.



2. Project Members and Collaborators:

Name	Koichi Kashiwagi	Eric Nelson	Hyon Kim	Jon Hagen	Doug Kim
Period	Research Assistant, Ehime	Graduate Student, Ehime	1/03 ~ 6/03	4/03 ~ 6/03	6/03 ~ 8/04
Task	All tasks	Agent engine	Agent engine	Database	Job launcher
					

Name	Ryan Liu	Vivian Chan	Tae Suzuki	Donya Shirzad	Duncan Smith
Period	6/03 ~ 3/04	4/04 ~ 6/04	4/04 ~ 6/04	6/04 ~ 8/04	6/04 ~ 8/04, (6/05 ~ 12/05)
Task	Database	Application	Documentation	Application	Agent engine
					

Two Available Positions for Undergraduate Research Assistants
(Jan. 2005 ~ Dec. 2007)

1. Position

The DSL will hire two undergraduate research assistants for the next three years starting from January 2005. Prospective assistants will be involved in our NSF-funded research project, where we develop the AgentTeamwork grid-computing middleware system that dispatches mobile agents over Internet to orchestrate the remote execution of user programs over a collection of idle computers. The jobs include the enhancement of mobile-agent execution engine, the development of database interface code, language-preprocessor design, applications development, and user-interface design. Frequent interaction with other project members and collaborators from Ehime Univ. will be expected.

2. Salary

$14.00/hour, 20hours/week

3. Merits

(1) You can earn money: $2800/quarter.
(2) This work can fulfill 10-credit CSS497/499 courses.
(3) The position will contribute to furnishing your resume.
(4) If you ask me to write a reference letter, I can include your project activity in real details.
Among those I wrote a reference letter for, three students were admitted to a graduate school at UW Tacoma, UC Irvine, and Ehime Univ. Japan. One of our students is planning to apply for UW Seattle.
(5) You can learn various Java/Linux programming techniques.
Java applets, sockets, RMI, JDBC, Servlets, MPJ, eXist/Xindice XML databases, JavaCC/ANTR compiler tools, etc.
(6) You may have some conference presentation opportunities.
We have presented our work at IEEE PacRim05 at Victoria. We are planning to attend PacRim07.
(7) If you are interested, you could visit Ehime Univ. Japan in accordance with UWB/Ehime student exchange agreement, work with my collaborators, and get some credits. Two CSS students are studying over there.

4. Eligibility

You must be a CSS undergraduate student and complete at least one of the following three courses **Prof. Fukuda is teaching**, and receive grade **3.5** or better:

- CSS430: Operating Systems
- CSS432: Network Design
- CSS434: Parallel and Distributed Computing

Although I am not teaching, CSS475: Database Systems will be useful to work on a portion of AgentTeamwork. The shortest milestones to get this position are:

Quarters	Courses to take
Fall 05	CSS342
Winter 06	CSS343
Sprint 06	CSS430 (Prof. Kochanski) and **CSS434 (Prof. Fukuda)**
Summer 06	You can work as an undergraduate research assistant.

5. Contact Point

Prof. Munehiro Fukuda
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Email: mfukuda@u.washington.edu Ph: 425-352-3459
Web: http://faculty.washington.edu/mfukuda and http://depts.washington.edu/dslab/