CAREER OPPORTUNITIES

COMPUTER PERFORMANCE ANALYSIS

The University of California's Los Alamos Scientific Laboratory, a multi-program research organization, is seeking professionals with interest and experience in computer performance measurement, modeling, and analysis. Our Computer Science and Services Division manages one of the world's most advanced computer complexes, which includes a CRAY-1 computer, four CDC 7600's, two CDC 6600's, two CDC Cyber 73's, and IBM 370/148, and numerous minicomputers, all operating in a network environment. Operating systems include CDC NOS, the Livermore Time-Sharing System (LTSS), and Bell Laboratories' UNIX. A high-performance operating system for the CRAY-1 is now being developed.

OPPORTUNITY #1

Requires a PhD in computer science or a related area and experience in the performance analysis of operating systems. Experience in one or more of the following areas is desirable: systems programming, computer architecture, distributed computing, or networking. A highly motivated individual will have the opportunity to propose and lead innovative projects in computer performance. Publication of research results is expected.

The Laboratory, located in the beautiful mountains of northern New Mexico, offers excellent working conditions and fringe benefits, such as 24 days' annual vacation, ample sick leave, and a progressive retirement plan. Los Alamos offers such advantages as uncrowded, casual living; a pollution-free environment with abundant recreational opportunities, and an excellent school system.

OPPORTUNITY #2

Requires a B.S. or M.S. in computer science or a related area with experience in development of computer performance measurement systems, performance modeling, and operating systems. In addition, experience in computer architecture, distributed computing, or networking is desirable. This individual will have the opportunity to develop both hardware and software performance monitors and to conduct performance analyses of operating systems and a local network.

Please send complete resume with salary requirements, in confidence, to:

Charles Mikkelsen, Employment Representative
DIV. 77-BH
Los Alamos Scientific Laboratory
P.O. Box 1663
Los Alamos, New Mexico 87545

AN AFFIRMATIVE ACTION EQUAL OPPORTUNITY EMPLOYER
WOMEN, MINORITIES, VETERANS, HANDICAPPED URGED TO APPLY
U.S. CITIZENSHIP REQUIRED

Classified Ads

Data Analyst: Bachelor's Degree in Engineering or Computer Science and two years experience with computers. Job requires design of data systems as well as analysis of data. Growth opportunity for imaginative individual. Send resume with salary requirements to Dr. Neal D. Pundit, Director of Technical Activities, IEEE, 345 E. 47th Street, New York, N.Y. 10017.

Chairman
Computer Science Department
ILLINOIS INSTITUTE OF TECHNOLOGY

A search has been initiated for Chairman of the Department of Computer Science at the Illinois Institute of Technology. Applicants should have a proven record in research and teaching appropriate for appointment as full professor. The Department offers the Ph.D., M.S., M.S.T., B.S., and B.A. degrees.

Applicants should submit vita and the names of three references to:

Dean Robert Filler
Lewis College of Science and Letters
Illinois Institute of Technology
Chicago, IL 60616

Inquiries and nominations should be directed to: Professor Anthony S. Wojcik, Department of Computer Science.

The Illinois Institute of Technology is an equal opportunity, affirmative action employer.

Assistant Professor: The University of Iowa has openings at the assistant professor level in the Division of Information Engineering. Candidates would teach undergraduate and graduate level courses in the Electrical and Computer Engineering Program and conduct research in the following areas: computer architecture; software and hardware; computer communications; computation theory; mini and microcomputer systems; operating systems. There are modern facilities within the Division for research in these areas and close research ties exist with the College of Medicine and with Physics and Mathematics. Send resume by January 15 to: Robert Arzbaecher, Chairman, Division of Information Engineering, The University of Iowa, Iowa City, Iowa 52242. The University of Iowa is an equal opportunity employer.
Chairperson
Department of Computer Science
WAYNE STATE UNIVERSITY

Wayne State University is a major state university with outstanding computational facilities including an Amadahl 470V/6. The College of Liberal Arts is creating a new Department of Computer Science from the existing Computer Science Section and is seeking the person best qualified to head that department. The Computer Science Section is presently organized within the Department of Mathematics. It has eleven faculty members, each of whom holds the Ph.D. degree, and is responsible for a three-year program which enrolls an average of some 1500 students each term and which grants bachelor and master's degrees. A proposal for a doctoral program is now being reviewed. The incoming chairperson will have an ideal opportunity to influence the many important decisions that face a growing program.

The search committee seeks candidates who hold the Ph.D., are dedicated to research and have distinguished scholarly records. Applications, nominations, and inquiries should be sent to:

Dean Martin T. Wechsler, Chairman
Computer Science Search Committee
College of Liberal Arts
Wayne State University
Detroit, Michigan 48202

Wayne State University is an equal opportunity/affirmative action employer.

Computer Science: Openings exist at the Assistant Professor level in Computer Science. Preferred research interests are operating systems, data base systems, systems programming and software engineering. Ph.D. in Computer Science or related field is required. Send resume with references to Prof. Norman E. Sondak, Head, Computer Science Department, Worcester Polytechnic Institute, Worcester, MA 01609. WPI is an equal opportunity/affirmative action employer.

The University of Mississippi invites applications for the position of Chairman of the Department of Computer Science in the Fall Semester, 1978. This new department of the School of Engineering has an established undergraduate degree program as well as a developing graduate program. Applicants should have a Ph.D. in Computer Science with administrative and teaching experience and demonstrated ability to conduct research in fundamental or applications areas of Computer Science. Applications should be sent to: Dr. Samuel DeLeeuw, School of Engineer- ing, University of Mississippi, University, MS 38677. Application deadline is February 1, 1978. Equal Opportunity Employer, M/F.

Faculty Position: Candidates for the faculty position of Assistant Professor in Computer Science and Engineering at The University of Texas at Arlington are now being considered for the spring or fall 1978 term. An engineering background with a doctorate in computer science or engineering is desired. Applicants should be able to teach and perform research in hardware or software engineering. Reply to: Dr. Roger S. Walker, Computer Science and Engineering, The University of Texas at Arлингton, Arlington, Texas 76019. The University of Texas at Arlington is an Equal Opportunity Affirmative Action Employer.

ASSISTANT PROFESSORS OF COMPUTER SCIENCE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The M.I.T. Department of Electrical Engineering and Computer Science has several positions available starting September, 1978, for superior candidates interested in teaching and research. Candidates from all areas of specialization within computer science will be considered. The Department has special interest in candidates in the hardware and computer systems areas. Research would probably be performed within the Laboratory for Computer Science (formerly Project MAC), the Artificial Intelligence Laboratory, or the Research Laboratory for Electronics.

Applications should include a curriculum vitae, and names and addresses of three or more references, non-U.S. citizens should include an expiration of visa status. Additional material describing the applicant's work, such as papers or technical reports, and a one-paragraph statement of future research plans would be helpful. Send applications to:

PROFESSOR ALBERT R. MEYER
Chairman
COMMITTEE ON COMPUTER SEARCH COMMITTEE
M.I.T., NE-43515
CAMBRIDGE, MA 02139

M.I.T. is an equal opportunity/affirmative action employer and actively solicits applications from women and minority group candidates.

Graduate Assistantships—Computer Science:
The Computer Science Department of the Colorado State University has research and teaching assistantship available, starting in September, 1978. Preference will be given to those who have either completed or are very near completion of a Ph.D. in Computer Science.

Applications should be sent to: Dr. Bernard W. Marschner, Chairman, Computer Science Department, Colorado State University, Fort Collins, Colorado. 80523.

SOUTHERN ILLINOIS UNIVERSITY
AT CARBONDALE

Applications are invited for assistant professor and associate professor who are interested in computer science research and computer science education. The assistant professor would be expected to teach a variety of courses in computer science and to conduct research in one of the following areas: microcomputers, software engineering, computer science education, or artificial intelligence. An M.S. or Ph.D. in computer science is required. Send applications to: Dean, College of Arts and Sciences, Southern Illinois University, Carbondale, Illinois 62901. The University is an Affirmative Action/Equal Opportunity Employer.

Two Computer Science Faculty Positions Open,
at the assistant, associate or full professor level. Both tenurable. Candidates must have a strong academic background and research record in theoretical computer science or software theory and practice. Send resume to Prof. Omar Wing, Dept. of Electrical Engineering and Computer Science, Columbia University, New York, N.Y. 10027, by January 31, 1978.

FACULTY POSITIONS IN COMPUTER SCIENCE
UNIVERSITY OF MINNESOTA

The University of Minnesota invites applications for faculty positions as assistant (or associate) professors of Computer Science available January 1, 1978. Applicants should have the Ph.D. degree and be qualified to teach and perform research. Applicants with specializations in operating systems, data base systems, or operating systems with emphasis on data base management aspects are encouraged to apply. Applicants with theoretical as well as practical experience are particularly encouraged to apply.

Forward resume together with names of at least three references to W. R. Franta, Chairman, Computer Science Search Committee, Dept. of Computer Science, 143 Space Science, 100 Union St. S.E., Minneapolis, Minnesota 55455. An equal opportunity/affirmative action employer.

ASSISTANT PROFESSOR
Department of Computing Science
University of Alberta

Applications are invited for a faculty appointment at the Assistant Professor Level, effective July 1, 1978. Minimum starting salary: $18,377.00 for 12 months. Applicants should have a Ph.D. in Computer Science and be strongly committed to teaching and curriculum development as well as research in computer architecture and systems organization. Reference letters are expected to provide evidence of the applicant's ability to do research on computer networks, microprogramming and microcomputer Applications, Graphics Systems. Departmental laboratory facilities contain a variety of mini- and microcomputers including PDP 11/45, PDP 11/60 and Nanodat QM-1 systems, as well as access to an Amadahl 470. Research funding and operational support also available. Send resume and names of at least 3 references to:

John Tartar Chairman
Department of Computing Science
University of Alberta
Edmonton, Alberta, Canada T6G 2H1

November 1977
RICE UNIVERSITY

The Department of Electrical Engineering at Rice University has an opening for an Assistant Professor in the area of Computer Science and Engineering to start in August 1978. We are particularly interested in applicants with a background in hardware or software engineering. Applicants should hold a Ph.D. degree. The position will involve graduate and undergraduate teaching as well as the supervision of graduate research. Resumes should be sent to J. B. Pearson, Chairman, Department of Electrical Engineering, Rice University, Houston, Texas 77001. Rice University is an equal opportunity-affirmative action employer.

CASE WESTERN RESERVE UNIVERSITY
CASE INSTITUTE OF TECHNOLOGY

Director—Andrew R. Jennings Computer Center:
Nominations and applications are sought for the position of Director of the Andrew R. Jennings Computing Center. Duties will include assuring adequate computing services for faculty, staff, and students in supervising the computer center; administering the operations of CWRUNET, the distributive computing network presently being developed; and acquiring needed computer equipment.

The position carries a 12-month faculty appointment in the appropriate department. Qualifications include a Ph.D. in Computer Science, Computer Engineering or some field in science or engineering with substantial experience in computer use. Some administrative experience in operating a computer facility is also required.

Inquiries and applications should be addressed to:
Prof. Glenn M. Frye, Jr.
Chairman, Search Advisory Committee
Rockefeller Building
Case Western Reserve University
Cleveland, Ohio 44106

Application deadline is February 1, 1978.

Case Western Reserve University is an equal opportunity/affirmative action employer.

California State University, Northridge—Department of Computer Science: Due to vigorous growth in student enrollment, faculty positions continue to be available in Computer Science. Positions are available for Spring '78 semester (beginning in late January) as well as for the '78-'79 academic year. Areas include: Data Base Systems, Graphics, Artificial Intelligence, Operating Systems, System Architecture. Qualifications: Ph.D., industrial experience desirable. Send resume to Philip Gilbert, Chairman, Department of Computer Science, California State University, Northridge, California 91330. To ensure consideration for positions beginning in Fall 1978, application should be sent on or before February 28, 1978. Equal opportunity and affirmative action employer.

Computer Professionals: Looking for a new challenge? Feel under-paid? Maybe a change of company or location could benefit you. My firm represents many client companies. In addition we have professional affiliation with other top recruiters in virtually every market-place in the USA. All fees are company paid and your inquiry is held in confidence. Send your resume to: COREY ASSOCIATES, 105 Wolf Road, Albany, N.Y., 12205.


The diversity of terms used by different designers to denote similar functions increases the difficulty of comparing several operating systems—a problem which the authors of this excellent book have managed very well. They present four different operating system techniques in a manner which makes comparative analysis possible. The systems discussed—the Burroughs B5500 Master Control Program, CDC Scope 3.2, T.H.E. Multiprogramming System, and the Cambridge University Titan Supervisor—were chosen because of their effect on subsequent operating system developments. To facilitate the comparison of such diverse systems, the authors have attempted to examine each one under the same headings and, wherever possible, in the same terminology. Thus, for example, the Burroughs terms “slave” and “bed” have been replaced by the more descriptive terms “dispatch queue” and “event queue.”

While it is not possible to utilize standard terms at the lowest level of each system, the authors do an admirable job of making their descriptions uniform. To cross-reference the authors' terminology with that of the manufacturer, a glossary of terms is provided for each of the systems examined. This feature alone would be sufficient to commend the book to teachers of operating system techniques. However, the book is more than a standardization of terminology; it is also a detailed description of implementation techniques and as such should be of interest to designers of operating systems.

Recently published books and new periodicals may be submitted for review to the Book Reviews Editor:

Dr. Francis P. Mathur
Professor and Computer Science Coordinator
Mathematics Department
California State Polytechnic University
3801 West Temple Avenue
Pomona, CA 91768
Telephone: (714) 598-4421

(Note: publications reviewed in this section are not available from the IEEE Computer Society. Please order directly from the publisher.)