



National Science Foundation

Excepted Position Vacancy

ANNOUNCEMENT NO: E20040115

OPEN: 09/02/04

CLOSE: 09/23/04

THIS IS A PERMANENT POSITION.

POSITION VACANT: Computer Scientist (Program Director), AD-1550-4, salary ranges from \$85,210 to \$132,791 per annum.

PROMOTION POTENTIAL: Computer Scientist (Program Director), AD-1550-4.

LOCATION: Directorate for Computer and Information Science and Engineering (CISE), Division of Computing & Communication Foundations (CCF), Arlington, VA.

BARGAINING UNIT STATUS: This position is included in the bargaining unit and will be filled in accordance with the merit staffing provisions of the Collective Bargaining Agreement Article VII.

AREA OF CONSIDERATION: All sources.

THIS POSITION IS OUTSIDE THE COMPETITIVE CIVIL SERVICE

Appointment to this position will be made under the Excepted Authority of the NSF Act. Candidates who do not have civil service status or reinstatement eligibility will not obtain civil service status if selected. Candidates currently in the competitive service will be required to waive competitive civil service rights if selected. Usual civil service benefits (retirement, health benefits, life insurance) are applicable for appointments of more than one year.

The Division of Computing and Communication Foundations (CCF), supports research and education activities that explore the foundations of computing and communication devices and their usage. The Division seeks advances in computing and communication theory, algorithms for computer and computational sciences, and architecture and design of computers and software. CCF-supported projects also investigate revolutionary computing paradigms based on emerging scientific ideas and integrate research and education activities to prepare future generations of computer science and engineering workers. Additional information about CCF and their programs can be found at <http://www.nsf.gov/home/cise/>

The **Foundations of Computing Processes and Artifacts** (CPA) Cluster seeks to advance the science, formalisms, and methodologies for building computing and communication systems. Research and education projects in software engineering, programming language design and implementation, graphics and visualization systems, computer architecture, and design automation are supported. Topical areas include: software design methodologies; tools for software testing, analysis, and verification; semantics, design, and implementation of programming languages; micro-architectures; memory and I/O subsystems; application-specific architectures; performance metrics; VLSI electronic design; analysis, synthesis and simulation algorithms; system-on-a-chip; architecture and design for mixed or future media (e.g., nanotechnology).

The CPA cluster (<http://www.nsf.gov/pubs/2004/nsf04519/nsf04519.htm>) covers a broad range of topics summarized under the headings Software Design and Productivity; High-end Software, Architecture and Design; and Computer Graphics and Visualization. These activities are highly interdisciplinary and candidates must demonstrate experience and an educational background (at the Ph.D. Level) in CISE areas (computer

science and engineering, computational science, communication and information science). The particular areas of expertise sought of the incumbent at this time correspond to the topic of Design Automation for Micro and Nano Systems. This part of the cluster supports basic research and education underlying the science and methodology for designing integrated systems comprised of traditional silicon VLSI technology, MEMS technologies, and Computing Media of the Future, e.g., nano-scale technologies. A particular area of emphasis is silicon nano-electronics.

DUTIES AND RESPONSIBILITIES: The individual will serve as Program Director in the Division of Computing & Communications Foundation. The CCF Division supports interdisciplinary research in the context of computer science and engineering, including research on challenging problems, bio-computing, and computational biology. The Division is responsible for supporting fundamental research in the science of computation and the engineering of computer systems. The research ranges from mathematical studies of algorithms and models of computation to the principles of engineering advanced computer software and innovative computer systems. The basic themes of this work include parallel and distributed systems, the study of algorithms in the context of their symbolic computation and computer languages. The Division supports interdisciplinary research that makes a substantial contribution to computer science and engineering, including research on Grand Challenge problems and in computation biology.

The incumbent of this position will be responsible for the following:

- Maintaining a healthy balance of support for all the needs of the research and education enterprise either through program, division, directorate, Foundation, or interagency activities.
- Manage program resources so as to provide optimal appropriate scientific judgment to insure integrity and consistency in the grant/declination process without conflict-of-interests, and with balance among appropriate sub-fields and institutions, and participation of all qualified scientists. Incorporate cross-directorate responsibilities into program administration.
- Manage an effective, timely merit review process, with attention to increasing the size and quality of the reviewer pools and insuring participation by women, minorities and disabled scientists.
- Provide scientific expertise, evaluation and advice for other programs in NSF, including international programs, other research programs, and cross-directorate programs.
- Advise and assist in the development of short and long-range plans, establishing goals and objectives for research programs. Plan the budget for the program/programs. Considering past, present and future years, allocate resources within that budget distributing scarce resources among major competitive programs, and manage post-award evaluation.

QUALIFICATIONS REQUIRED: Applicants must have a Ph.D. or equivalent experience in computer science, computer engineering, communication, information science and computational science or allied disciplines, plus six or more years of successful research, research administration, and/or managerial experience beyond the Ph.D. in an area supported by the program. Also desirable is knowledge of general scientific community, skill in written communication and preparation of technical reports, and ability to communicate orally, and several years of successful independent research of the kind Normally expected of the academic rank of associate professor or higher.

CONDITIONS OF EMPLOYMENT: Appointment to the position is contingent upon Successful completion of the appropriate background investigation. Satisfactory completion of a one-year trial period is required.

QUALITY RANKING FACTORS: Final ranking is based upon job-related experience, training, education, awards, performance appraisals or letters of recommendation, and the following knowledge, skills, and abilities:

- Knowledge of computer science, cognitive science, neuroscience, psychology, or biology and significant experience in education.
- Skill in gathering scientific information and communicating both orally and in writing with representatives from the scientific and/or engineering community.
- Skills in conducting scientific/technical analyses of proposals, and conducting final review of proposals and evaluations to recommend awards or declinations based on scientific merit, and evaluation of the availability of resources.
- Ability to manage, monitor grants, contracts, and cooperative agreements to ensure fulfillment of commitments and providing guidance to program staff as well as provide oversight and program management.
- Skill in preparing program budget and operating requirements and in serving in a lead capacity for coordinating a budget request plan.

HOW TO APPLY: You may apply for this position with the Optional Application for Federal Employment (OF-612), the older Application for Federal Employment (SF-171), a resume, or other application format of your choice - so long as it contains the necessary information (summarized below). You must submit a current Performance Appraisal or letters of recommendation from professionals who can comment on your capabilities.

You must specify the job announcement number, and title and grade(s) of the job for which you are applying. You should also provide the following information: * Your country of citizenship. * Your social security number. * Information about your education, including (1) high school graduation date and (2) college/university information - your major, and type and year of degree(s). * Information about all your work experience related to this job, including job titles, duties and accomplishments, employer's name and phone number, number of hours worked per week, starting and ending dates (month and year), and annual salary. If you held various positions with the same employer, describe each separately. * If you have Federal civilian experience, indicate the highest grade held, the job series, and dates held. * The brochure *Applying for a Federal Job* provides information on the Federal job application process; it is available by calling the number listed below. **If your application does not provide all the information requested in the vacancy announcement, you may lose consideration for this job.**

The National Science Foundation provides reasonable accommodations to applicants with disabilities on a case-by-case basis. If you need a reasonable accommodation for any part of the application and hiring process, please notify the point of contact listed on this vacancy announcement.

Submit all application material to National Science Foundation, Division of Human Resource Management, 4201 Wilson Boulevard, Room 315, Arlington, VA 22230. Attn: Announcement Number E20040115. In addition to the required application materials, you are asked to complete and submit the attached Applicant Survey form. Submission of this form is voluntary and will not affect your application for employment. The information is used for statistical purposes only. **ALL FORMS MUST BE RECEIVED BY THE CLOSING DATE OF THIS ANNOUNCEMENT.** For additional information call Myra Loyd, on (703) 292-4363. Hearing impaired individuals may call TDD (703) 292-8044.

NSF IS AN EQUAL OPPORTUNITY EMPLOYER COMMITTED TO EMPLOYING A HIGHLY QUALIFIED STAFF THAT REFLECTS THE DIVERSITY OF OUR NATION.

NATIONAL SCIENCE FOUNDATION
APPLICANT SURVEY

OMB No. 3145-0096
Expiration: 7/31/2005

Vacancy Ann. #: _____ Position Status (temporary/permanent): _____

Position Title/Series/Grade: _____

INSTRUCTIONS

Your completion of this form will be appreciated. Submission of this Information is voluntary and it will have no effect on the processing of your application. The data collected will be used only for statistical purposes to ensure that agency personnel practices meet the requirements of Federal law. Pursuant to 5 CFR 1320.5(b), an agency may not conduct or sponsor, and a person is not required to respond to an information collection unless it displays a valid OMB control number. The OMB control number for this collection is 3145-0096. NSF estimates that each respondent should take about 3 minutes to complete this survey, including time to read the instructions. You may have comments regarding this burden estimate or any other aspect of this survey, including suggestions for reducing this burden. If so, please send them to NSF Reports Clearance Officer, Division of Administrative Services, NSF, 4201 Wilson Blvd., Arlington, VA. 22230.

PRIVACY ACT INFORMATION

GENERAL - This information is provided pursuant to Public Law 93-579 (Privacy Act of 1974), December 31, 1974, for individuals completing Federal records and forms that solicit personal information.

AUTHORITY - Section 7201 of title 5 of the U.S. Code and Section 2000e-16 of title 42 of the U.S. Code.

PURPOSE AND ROUTINE USES

The information is used for research and for a Federal Equal Opportunity Recruitment Program (FEORP) to help insure that agency personnel practices meet the requirements of Federal law. Address questions concerning this form and its uses to the Privacy Act Officer, National Science Foundation, Arlington, VA 22230.

1. Today's Date: _____ 2. Year of Birth: _____

3. How did you learn about the particular position for which you are applying? (Circle appropriate number.)

- 01 - Newspaper (specify) _____
- 02 - Contact with NSF Personnel Office (Agency Bulletin Board or other Announcement)
- 03 - NSF-initiated personal contact
- 04 - Science Magazine, or other professional journal or magazine (specify) _____
- 05 - Affirmative Action Register
- 06 - Attendance at conference, meeting or job fair (specify) _____
- 07 - NSF recruitment at school or college
- 08 - Colleague referral
- 09 - NSF Bulletin
- 10 - Federal, State or local job information center
- 11 - State vocational rehabilitation agency or Veterans Administration
- 12 - State employment office
- 13 - School or college counselor or other official
- 14 - Private job Information service
- 15 - Private employment service
- 16 - Friend or relative working at NSF
- 17 - Friend or relative not working at NSF
- 18 - NSF website
- 19 - Internet or other website
- 20 - Other (specify) _____

4. Select the ethnic category with which you most closely identify:

- A. **Hispanic or Latino.** A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
- B. **Not Hispanic or Latino.**

5. Select one or more racial category with which you most closely identify:

- A. **American Indian or Alaska Native.** A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
- B. **Asian.** A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- C. **Black or African American.** A person having origins in any of the black racial groups of Africa.
- D. **Native Hawaiian or Other Pacific Islander.** A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- E. **White.** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

6. Sex (Circle the appropriate letter.) F - Female M - Male

7. Please provide information on your disability status by circling the appropriate category below:

- 1. I do not have a disability; 2. Hearing impairment; 3. Vision impairment; 4. Missing extremities; 5. Partial paralysis;
- 6. Complete paralysis; 7. Convulsive disorder; 8. Mental retardation; 9. Mental or emotional illness; 10. Severe distortion of limbs and/or spine; 11. I have a disability but it is not listed.

FOR AGENCY USE

Agency Code: _____

AN EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER