

## Resume of

**Daniel Nagle**

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### Skills

My skills include porting, optimizing, vectoring and parallelizing HPC Fortran and C/C++ programs. I can do so for vector, SIMD, or MIMD architectures. I am thoroughly familiar with the use of the Unix operating system, including the use of diagnostic utilities, GUI's, and networks. I can provide customized education in porting HPC Fortran and C/C++ programs. I am thoroughly familiar with Federal procurements and with the technical aspects of supercomputer technical sales and marketing.

### Experience

I currently employed an independent consultant providing programming and educational services to the HPC numerical computing community, I have been engaged by Government and Commercial concerns. From June, 1992, until July 1994, I was employed as a Field Analyst for Kendall Square Research Corporation. From January, 1990, until the cessation of operations in October, 1990, I was employed by Myrias Computer Corporation. From May, 1989, until the cessation of operations in January, 1990, I was employed by Evans & Sutherland Computer Division. From December, 1980, until May, 1989, I was employed by Cray Research, Inc. A chronological detail of my assignments follows:

*The following assignments were performed while I was employed by the firm indicated, or as an independent consultant.*

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|--------------------------------|--|
| January, 1999 to the Present   | As an Independent Consultant, provide training and consulting services to the high performance and scientific computing community. Develop software to ease the migration of scientific applications from Supercomputers to workstations and PCs |
| August, 1994 to December, 1998 | At an MSRC, ported programs, and developed and delivered training as part of a transition from vector computing to MPP computing. As an independent consultant, provided responses to RFP items and ported, op-                                  |

timized and parallelized programs that were part of the LTDs associated with RFPs.

June, 1992 to July, 1994

Field Analyst in support of sales in KSR's Greenbelt office. Ran prospects' benchmarks on the KSR1 supercomputer. Read RFP's and RFI's for technical content, wrote responses to technical items. Supported the KSR1 on site for extended periods at Universities, and DoE, DoD, and NSF Supercomputer Centers. Conceived and produced *Workshop on Using the KSR1*, and delivered same to users at Universities, and DoE, DoD, and NSF Supercomputer Centers as a means of porting applications and increasing system usage. Obtained customers' software requirements and communicated them to software development.

November, 1990 to May, 1992

Independent Consultant providing services concerning numerical computing. Provided advice concerning new hardware features of numerical computers, made presentation materials, presented discussions of new hardware features to supercomputer users, obtained feedback from users and reported same. Researched MIMD architectures, including communications, topology and processor issues. As an employee, provided user support problem solving, optimization, vectorization, and parallelization services at a government supercomputer center. Delivered to staff a lecture on benchmarking parallel supercomputers.

January, 1990 to October, 1990

Senior Systems Analyst in support of sales at Myrias' Vienna office. Made technical sales presentations to prospects, gathered prospects' technical requirements and reported them to software development. Obtained prospects' benchmarks and ran them on the SPS-2 supercomputer, running the Unix-based PAMS software. Presented benchmark results to prospects. Supported site where loaner machine was installed, including software installation and user problem resolution.

May, 1989 to January, 1990

Senior System Analyst in support of sales at ESCD's Falls Church office. Made technical sales presentations to prospects, gathered prospects' technical requirements and reported them to software development. Obtained pros-

pects' benchmarks and ran them on the ES-1 supercomputer, running the Esix operating system. Presented benchmark results to prospects. Read RFP's for technical content.

*The following assignments were all performed while I was employed by Cray Research, Inc. I was located at various sites within CRI's Eastern Region.*

January, 1988 to May 1989

Analyst-in-Charge of a CRAY X-MP/24 at a customer site. Responsible for configuring, generating, installing, testing system software, compilers, and so on, under COS operating system. Maintain customer relations day-to-day, keep customer advised of new products and updates. Support scientific users, support customer's system support analysts with custom utility software to automate operations, accounting, and so on.

January, 1986 to December, 1987

Analyst working as an Instructor in regional training group. Provided training for batch COS and interactive Unicos environments. Conceived and produced *Introduction to COS JCL* course and training manual. Converted all regional training manuals to troff form to facilitate source control and effective distribution. Revised regional Fortran optimization training manual. Conceived and produced regional multitasking course. Taught all above courses.

December, 1983 to December, 1985

Staff analyst to Regional Analyst Manager. Responsible for all software aspects of installation of Cray supercomputers at two customer sites, including customer contact, preparation and installation of system software, compilers, and so on, and for training customers' users. In regional sales office, wrote responses to RFP items. Supported prospects using COS and Unicos systems. Assisted in benchmarks, aided development of behind-schedule systems software needed to meet contractual obligations.

December, 1982 to November, 1983

User support analyst at customer site. Supported customer's user support group, ported and optimized user codes, developed and delivered custom training to increase CPU utilization. Designed, developed, tested and supported custom utility software.

January, 1982 to November, 1982 Aided in effort to add real-time features to batch COS. Responsible for drivers to support custom protocol, and initialize software to synchronize COS with network. Made code work, wrote test plan, wrote test procedure.

September, 1981 to December, 1981 Aided conversion of large CCL procedure library to COS JCL procedure library at customer site.

December, 1980 to August, 1981 Staff in field support located in software development division. Tracked problem reports, expedited fixes to sites. Initiated field support critical problems file and reviewed status of fixes at weekly meeting with software managers, kept critical problems file current.

## Education

Master of Science in Physics, Virginia Tech, August, 1980  
Bachelor of Science in Physics, Virginia Tech, June, 1975

## Continuing Education

Web Programming Certificate, NVCC, 1996  
(HTML, Javascript, Java I & II, C++, CGI w/ Perl, Webserver, VRML)

## Academic and Professional Organizations

AAAS, APS, J3 (Fortran Standards)

## Publications

Nagle, Dan. Whither Fortran. *ACM Fortran Forum*. **21**(1) Apr. 2002

Nagle, Dan. The Fortran 2000 Standard. *Dr. Dobb's Journal*. **#333** Feb. 2002

Nagle, Dan. fthreads for Visual Fortran. *Dr. Dobb's Journal*. **#326** Jul. 2001

Nagle, Dan. An Implementation of coco. *ACM Fortran Forum*. **20**(1) Apr. 2001

Nagle, Dan. The Portability Project. *ACM Fortran Forum*. **18**(2) Apr. 1999