MARK A. MARTIN

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Detail oriented professional with extensive experience in research, software development, systems programming and teaching. Proven track record of designing, developing and implementing software that increases understanding of biological systems and leads to improvement of developmental methods. Adept at finding solutions to challenging problems and issues. Skilled at creating processes that improve productivity and effectiveness. Natural leader and team builder with strong communication skills.

Areas of Expertise:

- Research
- Software Architecture
- Mathematical Modeling
- Teaching
- Software Development
- Web Site Development
- Linux / UNIX
- Documentation
- Process Improvement

"I have no hesitation in recommending him. If I had an opening I would hire him myself."

Ira Kalet, Associate Professor, Radiation Oncology, University of Washington

"He was one of those employees that absolutely inspired confidence at all levels. ... His dedication to the group and doing an excellent job were an impressive constant."

Joan Scroggs, Former Manager at Boeing

"Mark is a bright, broadly trained, applied mathematician with an amazing ability to integrate information from disparate fields and tremendous computer programming and systems administration skills."

Mark Kot, Associate Professor, Applied Mathematics, University of Washington

CAREER HIGHLIGHTS

Played key role in the introduction of new technologies while managing a team of 7 administrators that maintained TB-scale Sequent Symmetry 5000 and NUMA-Q 2000 servers.

Created parallel software package for globally analyzing arbitrary-dimension nonlinear dynamical systems.

Architect of software for modeling prokaryotes as networks of biochemical pathways.

Contributed to software used to treat cancer patients for almost 10 years.

Reduced production time for a major bioinformatic product by at least 700%.

Successfully designed and implemented firewalls stopping daily attacks.

PROFESSIONAL EXPERIENCE

Scientist, Portland Bioscience, L.L.C., Portland, OR 2004 – 2005

- Researched, developed, and implemented methods elucidating the structures and functions of proteins and the behaviors of nucleic acids in multiplex hybridization reactions on microarrays.
- Architected, developed, and maintained software to implement methods.
- Designed, built, and maintained company computing facilities.
- Contributed to business decisions.

Computational Scientist, Integrated Genomics, Inc, Chicago, IL 2001

- Designed software for mathematically modeling prokaryotic organisms as networks of metabolic reactions and developing the company's biochemical pathway collection. Supervised and participated in implementation.
- Lead effort to provide infrastructure for using legacy methods for developing and maintaining pathway collection.
- Researched market value of positions, located and interviewed candidates, made offers, and negotiated salaries.
- Aided in Linux/UNIX systems design and support.
- Secured company computing resources.

PROFESSIONAL EXPERIENCE – Cont.

Scientific Programmer, Boystown National Research Hospital, Omaha, NE 2000

- Extended, corrected, and improved STAR (Stimulus Treatment for Auditory Research), which is a tool for studying the elements of speech that are important to hearing.

Lead UNIX Systems Administrator, Boeing Information and Support Services, Bellevue, WA 1997

- Led team of 8 administrators and technical services personnel in certifying new technologies.
- Led team of 7 administrators that maintained TB-scale systems.

UNIX Systems Administrator, Boeing Information and Support Services, Bellevue, WA 1996

- Maintained 1, 2, or 3-node Sequent Symmetry 5000 clusters with thousands of users, on the order of a TB of disk space, and thousands of logical volume objects.

Assistant Systems Administrator, Dept of Applied Math, University of Washington, Seattle, WA 1995 – 1996

- Ran backups, restored lost files, and serviced printers.
- Maintained and enhanced the department's web site.
- Upgraded and installed software.
- Assisted and instructed users.

Scientific Programmer, Dept of Radiation Oncology, University of Washington, Seattle, WA Summer 1993

- Implemented, optimized, and corrected portions of the department's radiation treatment planning software.
- Helped create protocols used in the software and modified the software to conform to the protocols.
- Documented work and flow-charted the software.
- Ported code from Sun to HP workstations.
- Developed automated testing software.

ADDITIONAL EXPERIENCE

Software Developer

- Designed and written procedural and object-oriented programs, constructed GUIs and animations, and developed or participated in the development of distributed and parallel applications.
- Authored or contributed to a wide variety of projects in many languages on many platforms.
- Worked on projects consisting of tens of thousands of lines of code.

Web Site Designer and Developer

- Proficient with a wide array of web servers, web browsers, graphics software, and web technologies.
- Created a web-based tool for remotely retrieving and graphically presenting system information.
- Has been designing and implementing web sites since 1994.

Linux Systems Administrator

- System configuration, management, kernel building, troubleshooting, and installation. Hardware replacement, configuration, troubleshooting and installation.

Microsoft Windows Administrator

- Maintenance of Windows 3.x through XP. Y2K remediation for Windows 95, 98, PC hardware replacement, configuration, troubleshooting and installation.

EDUCATION

Ph.D., Applied Mathematics, 2000, University of Washington, Seattle, WA

MS, Applied Mathematics, 1992, University of Washington, Seattle, WA

MS, Mathematics, 1988, University of Arizona, Tucson, AZ

BA, Mathematics, 1986, University of Colorado, Boulder, CO