Alan Frank

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Goal: A position as a programming team member or lead, designing and implementing high-quality software which improves people's lives.

Summary of skills:
- Intelligent, analytical, detail-oriented; skilled problem-solver and quick learner. Successful programming and business experience.
- Excellent academic background and achievement in mathematics.
- Knowledge of PHP, SQL, Java, Javascript, PowerBuilder, C, FORTRAN, BASIC, and many other languages.
- Experienced in planning and developing successful large-scale projects from conception to completion.

Experience:

Cerner (formerly Dynamic Healthcare Technologies, and before that CoMed), Waltham, Mass.
Cerner's CoPathPlus software is the product of choice for anatomic pathologists nationwide.
A variety of assignments designing, programming, and maintaining health-care related programs.
- Lead architect for team, with primary responsibility for process improvement and code/design reviews, including three years as manager.
- Successfully took over challenging projects that stumped other team members.
- Led project to bring software into compliance with Department of Defense requirements and to make other security improvements.
- Developed automated database and file patching software which enabled our support team to meet its Y2K deadline.
- Designed and wrote a program which uses artificial intelligence techniques to assign pathology research codes based on interpretation of English text. Field tests have shown this program to be more accurate than similar programs developed elsewhere.
- Designed and developed prototype software to use T_EX to render pathology reports. This approach was shown to be faster, more reliable, and more flexible than the MS Word interface which is currently in use.
- Designed and developed a program to convert free-text source code comments in PowerBuilder objects into searchable HTML documentation (á la Javadoc).
- Modified a variety of routines for unusual customer specifications, increased efficiency, greater clarity, and/or compatibility with other software.
- Copy editor for client-facing quarterly newsletter and other group publications.

Ars Digita University, Cambridge, Mass.
The goal of ArsDigita University was to offer the world's best computer science education, at an undergraduate level, to people who were otherwise unable to obtain it.
Recitation Leader
- For a class in Object Oriented Programming using Java, prepared supplementary material, assisted students with assignments, graded examinations, and helped lecturer as needed.

Matchups *(consultant)*
Developed a web-based solution to find words meeting user-specified criteria
- PHP is used to dynamically generate SQL to perform efficient searches
- Includes secure user and session management
- Allows for private or sharable user-defined searches and word lists

Developed a full-screen routine editor.
- Developed methods to allow complete user customization of the interface without sacrificing performance.
- Created software which will run under any standard MUMPS implementation and on any terminal, but will take advantage of special features which some of them may have.
- This software was adopted by CoMed as an integral part of their software tools.

Developed mass-market software.

- Designed, wrote, and documented a computer program called Tyler which plays word games. Tyler has won four silver medals at Computer Olympiads in the Scrabble competition. Copies of reviews available on request.
- Author and co-designer of Explore, a multi-user, Adventure-style social, creative, and puzzle-solving environment.

National Rating Statistician for Scrabble.

Representative to MUMPS Development Committee

- Actively participated in design of many new standard features.
- As a Subcommittee secretary, helped develop standards for accurate and useful minutes.
- Served as chair or secretary to several task groups.

Other experience includes *pro bono* work for nonprofits, gaming simulation and analysis, development of software conversion tools, and algorithm design.

Education:

Oberlin College, Oberlin, Ohio. Bachelor of Arts in Mathematics, with highest honors
Brown University, Providence, R.I. Teaching assistant/Graduate student in Mathematics

Honors and Affiliations:

MUMPS Development Committee (Secretary of subcommittee on programming structures from 1988 to 1995).
Mathematical Association of America.
American Contract Bridge League, Silver Life Master.
Northeastern U.S. Scrabble champion, 1983 and 1986, and winner of various other regional tournaments.

Selected publications:

"InstallShield v5 to v6 White Paper," online at InstallSite.org, 2001.
"Phonetic Encoding of Names," Word Ways, 1991.
"Discussion of MUMPS Language Proposals which may be Backwards Incompatible;" Alan Frank, Gretchen Bradfield, Roger Partridge, and Mike Ward; MUG [MUMPS Users Group] Quarterly; Spring 1991.
"Lebensohl Against Weak Notrumps," The Bridge World,February 1991.
"Brute Force Search in Games of Imperfect Information," in Heuristic Programming in Artificial Intelligence 2, Don Beal and David Levy editors, Ellis Horwood Ltd., New York, 1991.
"Software Tools -- Designer Windows: InterSystems Forms Manager Draws on Latest Techniques for Screen- Oriented Data Entry;" Jacqui Horwitz, Alan Frank, William Arntz, and Joseph Mazza; MUG Quarterly; Fall 1984.
"Automation of Formal Rules Derived From Research Protocols," Frank, A.D., Friedman, R.H., and Krikorian, J.G., Proceedings of the International Congress on Medical Informatics, Strasbourg, France, 4/81.
"The Countability of the Rational Polynomials -- a Direct Method," American Mathematical Monthly, 12/80.
"Advising and Academic Standing," Oberlin Freshman Handbook, 1977.

Interests

Bicycling, hiking, games and puzzles, recreational wordplay and mathematics, reading