CURRICULUM VITAE

Prepared September 9, 2005

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Single, no children.

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Education:

Year	Diploma	Major	University
1998	PhD	Mathematics	University of Texas at Austin
1991	PhD	Computer Science	Universidad Politécnica de Madrid, Spain
1978	BS	Mathematics	Universidad Complutense de Madrid, Spain
1977	BS	Physics	Universidad Complutense de Madrid, Spain

Awards:

1971 Winner of the regional level of the VIII Spanish Mathematical Olympiad. Received 5-year scholarship for studying Mathematics.

Employment:

2005–pres. Technical Support Consultant, Department of Mathematics, Northwestern University. Main duties: computer system administration.

1998–2005 Lecturer and Computer System Administrator, Department of Mathematics, Northwestern University. Main duties: computer system administration and teaching two Mathematics courses per year. Taught: Linear Algebra, Integral Calculus, Mathematical Foundations of Computer Science (Discrete Mathematics.)

1997–1998 Computer A.I., Department of Mathematics, University of Texas at Austin. Main duties: computer consultant and webmaster.

Free-lance Translator and Copy-editor (English to Spanish.)

1996–1997 Assistant Instructor, Department of Mathematics, University of Texas at Austin.

Fall 1996 Graduate Research Assistant, Department of Mathematics, University of Texas at Austin.

1995–1996 Computer T.A., Department of Mathematics, University of Texas at Austin. Main duties: computer consultant and webmaster.

1993–1995 Teaching Assistant, Department of Mathematics, University of Texas at Austin.

1990–1993 Nontenured Assistant Professor, School of Computer Science, Universidad Politécnica de Madrid, Spain. Taught: Compilers, Functional Programming.

1978–1990 Teacher of Mathematics at public High School, Madrid, Spain.

1978–1979 Lecturer, Department of Mathematics, Universidad Complutense de Madrid, Spain. Taught: Geometry.

Extra-Curricular Activities:

2003–pres. Coordinator for the Northwestern University Math Problem Solving Group.

2003–pres. Training of candidates to the William Lowell Putnam Competition for Northwestern University.

Research Interests and Activities:

Analytic Number Theory, Computational Geometry, Computability, Logic, Foundations, Discrete Mathematics, Math Problem Solving, Putnam Competition Training.

Publications:

1. (with Castellanos, J.; Ríos, J.; Segovia, J.): Fast Training of Feedforward Multilayer Neural Networks By Means of a Weighted Least Mean Square Algorithm, *Neural Network World* 5/92, 423–436.
2. (with Barrios, D.; Ríos, J.; Segovia, J.): Fast Training of Feedforward Multilayer Neural Networks by Means of Linear Methods: Experimental Tests, *Proceedings of the Fifth International Symposium on Knowledge Engineering*, Sevilla, Spain, October 5–9, 1992, pp.170-178.
3. Ampliación al espacio de una aplicación de la integración en el campo complejo para la solución de una cuestión de informática gráfica, English summary: Extension to the Space of an Application of Complex Integration for Solving a Topic on Graphic Computation, *Questiiò*, Vol.16, N.1, 1992, pp.59–75, Barcelona, Spain.
4. (with Castellanos, J.; Ríos, J.; Segovia, J.): Approximation of Functions by Neural Networks: an Experimental Test, *International Journal of Neural Networks*, Vol.3, No.4, December 1992, pp.149–153.

5. *Introducción a las redes de Hopfield*, in Olmeda, I., and Barba-Romero, S. (Ed.): *Redes Neuronales Artificiales, Fundamentos y Aplicaciones*, Servicio de Publicaciones de la Universidad de Alcalá de Henares, Alcalá de Henares, Spain, 1993.

Preprints:

1. Distribution of Powers Modulo 1 and Related Topics, *The Mathematical Physics Preprint Archive*, preprint 95-292, Jun 21, 95.
2. Construction of A Number Whose Powers Are Uniformly Distributed Modulo 1, February 1996.
3. Some Applications of Extremal Functions in Fourier Analysis, November 1996.
4. The Bernoulli Periodic Functions, June 2002.
5. Physics: A Brief Summary, October 2002.
6. Putnam Training Problems, December 2004.
7. Notes on Discrete Mathematics, May 2005.

Skills:

1. *Teaching*: Over 35 years teaching experience. Started at age 15 as a private tutor of Mathematics, Physics and Science. Taught Mathematics and Computer Science at High School and college. Familiarity with software for teaching on line such as *Blackboard*.
2. *Computer System Administration*: Seven year experience administrating a network of over 50 PCs, mostly with Linux, plus a few Windows XP, and Macs.
3. *Computer Programming*: Fortran, C, shell scripts, Perl.
4. *Software*: Experience using and/or maintaining software packages: TeX/LaTeX, Maple, Mathematica, Magma.
5. *Web*: HMTL editing, electronic forms, CGI, CSS, PHP.
6. *Math Problem Solving*: Currently conducting the Northwestern University Math Problem Solving Group and Putnam Competition Training.
7. *Languages*: Spanish (native), English (fluent), French (read).
8. *Learning*: I am a quick and eager learner.

Membership:

American Mathematical Society

Mathematical Association of America

Association for Computing Machinery

American Translators Association

Chicago Area Translators and Interpreters Association