PROBITAS

PROBITAS® CORPORATION
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A. J. NICHOLS, Ph.D.

SUMMARY

Broad technical experience in all aspects of computer engineering: software, firmware, hardware, and management. Emphasis on architecture, operating systems, telecommunications, and microprocessor-based design. Serves as a Special Master, neutral expert, mediator, and arbitrator in trade secret, patent, and other intellectual property litigation.

EDUCATION

Ph.D., Electrical Engineering, Stanford University

M.S., Electrical Engineering, Stanford University

B.S., Electrical Engineering, University of Colorado (with honors)

B.S., Business Management, University of Colorado (with special honors)

Mediation Workshop, Harvard Law School.

PROFESSIONAL ORGINAZATIONS

Fellow of the Academy of Court-Appointed Masters

Institute of Electrical and Electronic Engineers

Association for Computing Machinery

ARBITRATION AND MEDIATION PANELS

Commercial Arbitration Panel and Technical Mediator, American Arbitration Association

Mediator, ADR Program of the United States District Court, Northern District of California

Appellate Mediation Program, Court of Appeal, First Appellate District of California

Mediator, Peninsula Conflict Resolution Center

PROFESSIONAL EXPERIENCE

PROBITAS CORPORATION

President and Founder: Probitas is a consulting firm established to provide sophisticated capabilities in computer engineering. Some specific assignments have included:

- -Serving as a Special Master and neutral expert to U.S. District Courts in cases such as *RIAA v. Napster*, *Sun v. Microsoft* and *Cadence v. Avant!*, to the Supreme Court of Singapore in *Creative Technology v. Aztech Systems*, and in other forums.
- -Serving as a neutral evaluator to the parties in *Cisco v. Huawei*, *Niku v. Business Engine Software*, *SAT Corporation v. Zeta Technologies* and other matters.
- -Analyzing and modifying operating systems, especially Windows, MS-DOS, and OS/2
- -Developing products such as a web-based personnel resource program, a hand-held GPS receiver, a remote security system, a Hayes-compatible modem, and a data collection system.
- -Programming in a multitude of languages including C, C++, Java, HTML, Assembly Language, FORTRAN, PASCAL and COBOL.
- -Creating a new approach to UPC scanning
- -Correcting design errors in disk controllers and memory boards

-Writing device drivers
-Assistance in the design of instruments for the analysis of data communications
-Designing adapter boards for the PC and PS/2 families
-Serving as a technical expert in litigation as an expert witness and consultant.
-Auditing the development process and status of products for CEOs, venture capitalists, and in mergers

MILLENNIUM SYSTEMS, INC.

Millennium Systems was a developer and manufacturer of microprocessor-based design, test, and service instrument products.

Vice President and Division Manager, Test Products. P&L responsibility for this business. Responsible for and managed marketing and development for the line of hardware and software test products. Also provided corporate-wide engineering services and product engineering.

Vice President, Engineering. Responsible for the hardware and software development of the company's products. Developed and managed a department of over 50 people involved in product design, software engineering, drafting, document control, and sustaining engineering. Responsible for the cost-effective and timely release of more than 25 products into manufacturing and for providing technical support to marketing, sales, and operations.

INTEL CORPORATION

Engineering and Strategic Business Segment Manager, Instrument and Test Systems. Responsible for the development and management of a new operation engaged in the design and marketing of a microprocessor test instrument.

Manager, Peripherals Engineering. Established a consolidated department and assumed responsibility for product planning, circuit design, and related software development of all microprocessor peripheral integrated circuits. These included floppy disk controllers, data communications chips, and game controllers.

Manager, Microcomputer Applications/Publications. Planned and established these new functions to provide product and systems applications information, coordinate Field Application Engineer activities, and develop reference manuals and other publications for the Microcomputer Division.

AMERICAN MICROSYSTEMS, INC.

Director of Engineering, Industrial Products. Responsible for the development of standard product software, integrated circuits, and systems. Managed a staff of 25 in logic design, circuit design, software development, and product engineering. Completely reorganized and restaffed operation. Developed cost and project control systems and procedures.

NOVAR CORPORATION/GTE INFO SYSTEMS

Director of Systems Development; Director of Product Planning. Member of founding group for this computer terminal company which was merged into GTE. Responsible for the development of new product specifications, electronic design, software support, and overall systems considerations. Controlled all digital communication methods and protocols.

LOCKHEED MISSILES & SPACE COMPANY

Research Scientist. Conducted applied research and development in operating systems and file management. Developed timesharing monitors, data base management systems, spooling systems, and associated utilities. Performed original research in switching theory and digital system design.

PATENTS

3,678,462 - “Memory for Storing Plurality of Variable Length Records.”

4,119,955 - “Circuit for Display, Such as Video Game Display.”

5,170,470 - “Integrated Modem Which Employs a Host Processor as its Controller.” Also issued as European Patent 0340613.

PUBLICATIONS

"Primer for Lawyers: Computer Technology and the Expert," in Corporate Counsel’s Guide to LAW DEPARTMENT MANAGEMENT (Second), Business Laws, Inc., Chesterland, Ohio, 1995.

"Basic Computer Terminology for Lawyers" (Video Tape), Practicing Law Institute, 810 Seventh Avenue, New York, NY, 1985.

"An Overview of Microprocessor Applications," Proceedings of the IEEE, Vol. 64, No. 6, June 1976, pp. 951-953.

"Minimal Shift Register Realizations of Sequential Machines," IEEE Trans. on Electronic Computers, Vol. EC-14, Oct. 1965, pp. 688-700.

"State Assignments in Combinational Networks," with A. J. Bernstein, IEEE Trans. on Electronic Computers, Vol. EC-14, Oct. 1965, pp. 343-349.

"Multiple Shift Register Realizations of Sequential Machines," Ph.D. Dissertation, Stanford University. Also published as Technical Report 6-74-64-48, Lockheed Missiles & Space Co., Sunnyvale, CA, October 1964.

"Comments on Armstrong's State Assignment Techniques," IEEE Trans. on Electronic Computers, Vol. EC-12, August 1963, pp. 407-408.

"Thin Film Technologies for Space Electronic Components," with W. D. Fuller, PGSET Record of the 1962 National Symposium on Space Electronics and Telemetry, Oct. 1962, pp. 8.2-8.16.

"Distributed Parameter Circuit Design Techniques," with P. S. Castro and H. F. Kaiser, Space/Aeronautics R&D Handbook, 1962.

PRESENTATIONS

“Serving as a Neutral Expert”, Forensic Expert Witness Association, San Francisco Chapter, Oakland, CA, April 15, 2009

“The Non-Attorney Technical Master”, Annual Meeting of the Academy of Court-Appointed Masters, Phoenix, AZ, January 31, 2009

“A View of IP Litigation from an Expert Witness and Neutral”, Silicon Valley Association of General Counsel 2008 All Hands Meeting, San Jose, CA, December 4, 2008

“The Special Master as a Computer Technology Expert,” in the American Law Institute of the American Bar Association course “The Art and Science of Serving as a Special Master in Federal and State Courts,” Washington, DC, November 2, 2007

“The Manger’s Nightmare: Technical Litigation”, IEEE Engineering Management Society, Santa Clara Valley Chapter, Santa Clara, CA, October 30, 2002

“The Effective Use of Court-Appointed Neutral Experts in Technology Cases,” with The Honorable Susan Illston, Alan MacPherson, Esq. and Norma Formanek, Esq., Northern California Chapter of the Association of Business Trial Lawyers, San Francisco, CA, June 13, 2000.

"Beyond MIDI," The Twentieth Annual Asilomar Microcomputer Workshop, Asilomar, CA, April 20, 1994.

"Introduction to Computers for Lawyers," Practicing Law Institute, New York, NY, February 25, 1985, September 18, 1986, and November 3, 1988.

"Effective Use of Expert Witnesses, An Expert's View," Practicing Law Institute, New York, NY, November 4, 1988.

"The Evolution of the Microcomputer," CACDP Fall Conference, Santa Cruz, CA, October 29, 1976.

"Microprocessor Update, 1975, IEEE Intercon 75, April 8, 1975.

"A Microprogrammable Framework for Experimental Machine Design," 2nd Annual Symposium on Microprogramming, Phoenix, AZ, October 1969.

"Modular Synthesis of Sequential Machines," 6th Annual Symposium on Switching Circuit Theory and Logical Design, University of Michigan, October 1965. Appears in the Proceedings, pp. 62-70.

"Thin Film Integrated Components for Telemetry Subsystems," with W. D. Fuller, 18th Annual National Electronics Conference, Chicago, IL, October 1962. Appears in the Proceedings, Vol. 18, pp. 669-684.

"Distributed Parameter Circuit Design Techniques," with P. S. Castro and H. R. Kaiser, WESCON, Los Angeles, CA, August, 1962.

REVIEWS

"Contemporary Concepts of Microprogramming and Emulation," by Robert F. Rosin, Computing Reviews, Vol. 11, No. 12, December 1970, p. 682.

"The IBM 360/195," by J. O. Murphey and R. M. Wade, Computing Reviews, Vol. 11, No. 9, September 1970, p. 535.

"On Asymptotic Estimates in Switching and Automata Theory," by Michael A. Harrison, Computing Reviews, Vol. 7, No. 4, July-August 1966.

"Time-Varying Sequential Machines," by A. Gill. IEEE Trans. on Electronic Computers, Vol. EC-14, February 1965, p. 90.

SPECIAL ACTIVITIES

Lectured at Stanford University in the graduate departments of Electrical Engineering and Computer Science.

Chaired the Special Interest Group on Microprogramming in the ACM.

Served as an ACM National Lecturer.

AVOCATIONS

Skiing, golf, scuba diving