MARGARET CHOCK, PHD, CMC

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QUALIFICATIONS

Ph.D. Computer Scientist with experience in business, department, and project management, as well as research skills and a variety of technical capabilities.

EDUCATION

Ph.D., Computer Science, UCLA, 1982

Image processing, geographic information systems, data base management systems, pattern recognition / artificial intelligence, solid state devices, parallel processing, networks, medical applications.

M.S., Computer Science, UCLA, 1978

Numerical analysis, simulation.

B.A., Mathematics, U. C. Santa Barbara, 1967

B.A., Anthropology, U. C. Santa Barbara, 1965

Certified Management Consultant (CMC), Institute of Management Consultants, 1990

EXPERIENCE HIGHLIGHTS

M. I. B. Chock, LLC, 1982-1997 and 2003-present, Principal

Research as a part of computer systems & software expert witness teams. Many projects required development of tools for fast analysis of large quantities of data without access to the normal support systems for that data, and frequently with the wrong data to start with.

- Helped find email, software, and copyright-filing evidence of misappropriation of client software and business methods for insurance sales.
- Used two organizations' own software and data to demonstrate trivially easy methods of fulfilling regulatory requirements they claimed would be onerous.
- Developed a timeline comparison tools to demonstrate development simultaneous contractual, system development, financial, and customer relationship disruption issues in a software developer / service provider relationship.
- Proved abuse of user testing procedures by a hospital in an attempt to discredit a medical records system vendor, to avoid paying for extensive custom software development.
- Helped find a defect in a retail pharmacy system that allowed a mis-prescribed drug to remain on a patient's prescription list.

- Proved plagiarism of one company's credit card processing software by another software company.
- Showed misinterpretation of software patent claims by the Patent Office.
- Graphically illustrated evidence that development of a donations tracking system would probably never come to a successful conclusion, and illustrated the reasons why – also demonstrated that the developer was consistently misrepresenting the facts to the client about project completion.
- Demonstrated a software developer's inadequate project management practices to be able to provide the systems and support needed by an insurance company.
- Developed methods to evaluate the proportion of an old check-processing system represented in the latest versions of the software of a company to which the code had been licensed.
- Determined that an accounting software reseller had performed adequately on a project integrating accounting with a warehousing system – and that the unhappy customer had forgotten signing a contract with another company altogether to provide the project management services at issue.
- Helped outline procedures that would have helped an equipment inspector for a leasing company to have detected fraud by a client.
- Researched capabilities of a laboratory billing system, and demonstrated how their reports could have been faked by the user.
- Researched methods of estimating packaged software prices at various times in the past.
- Proved that customer data had been manipulated by departing employees of an investment management firm in order to misappropriate royalty payments, and demonstrated that this took place at a time much earlier than the firm suspected.

Analyzed software for product line potential.

Developed software applications for statistical analysis, inventory, and time sheet metrics.

Managed an enterprise Client/Server system through the full life cycle: requirements gathering, system design, site preparation, installation, staff training, integration of legacy applications, Year 2000 corrections, pilot projects, several months of production use, upgrades, expansion, and establishment of an Information Systems Division, coordinating more than 30 people.

Developed a data base management system and fourth-generation language for management and manipulation of image and other two- and three-dimensional data.

Designed and built applications for engineering analysis, transportation, environmental analysis, image processing, computer graphics, and financial planning, in APL, Assembler, BASIC, C/C++, COBOL, FORTRAN, PL/I, and Visual Basic.

Designed and built user interfaces and applications using object-oriented languages for Geographic Information Systems, including ArcView, Avenue, Genasys, GDS, and IGOS.

Designed and built data bases and data base applications for several clients in Access, dBase, Knowledgeman, Oracle (including Forms, Menus, Reports, and SQL+), and SQL.

Managed project and proposal teams.

Analyzed the requirements for enterprise computer systems for several clients, in local government, transportation, and utilities.

Planned information systems strategy for several clients.

Designed systems and wrote Requests for Proposal for clients.

Analyzed vendor capabilities for several clients.

Analyzed software architecture for several systems.

Worked in a variety of computer environments: IBM mainframe (MVS, VM), DEC VAX (VMS, UNIX) and Prime minicomputer, IBM, Sun, and Tektronix workstation, PC (DOS, Windows), and Macintosh.

PETNet Pharmaceuticals, Inc., 2002-2003, Computer Scientist

Managed information systems for the Los Angeles Technology Center research facility. Redesigned the local network to enable computer backup, domain management, and greater security, adding the first network and database servers. Designed and set up special-purpose workstations. Coordinated development of a commercial chemistry library system.

Outlined options for image processing and other computer science research related to positron emission tomography. Developed software for image management.

Analyzed and expanded the telephone system. Installed a videoconference system.

Computer Sciences Corp. (CSC), 2000-2002, Project Mentor/Quality Assurance Specialist

Provided formal and informal training for staff and mentoring for project managers in CSC's Capability Maturity Model (CMM) procedures. Developed minor research projects and presentations on various topics, including rationalizing the applications catalog, Six Sigma, and Lean Manufacturing.

BAE SYSTEMS Aircraft Controls, 1997-2000, Member of the Technical Staff

Managed the Business Systems Department.

Managed the Year 2000 Business Systems Strand, and co-authored the Year 2000 Contingency Plan.

Planned and tracked projects for Web-Based Collaboration, Data Warehouse, Customer Service Tracking, Automated Data Collection, Government Reporting, and Earned Value Reporting.

Defined Aircraft Controls' business computer systems architecture.

Wrote the CMM Level 2 policies, procedures, and templates for Information Systems & Technology, based on the new Integrated Systems/Software Capability Maturity Model.

Wrote Fagan Inspection, Function Point Estimation, Peer Review, and Configuration Management policies and procedures.

Wrote the Business Systems Department Methodology.

Defined requirements for several projects, including Quality Assurance, Materials Estimation, Data Warehouse, Customer Service Tracking, Government Reporting, and Earned Value Reporting.

Generation 6 Consulting Group, 1987-88, President

Managed a staff of 5 people.

Analyzed enterprise-wide requirements and wrote an RFP for computer systems, for health care and local government clients.

UCLA Computer Science Department, 1976-82, Research Engineer

Performed research in simulation, parallel processing, data base management, image processing, environmental modeling, and geographic information systems.

Computer Usage Development Corp., 1968-70, Senior Programmer

Led a programming team of 4 people. Developed cost estimating and financial planning software in COBOL and IBM Assembler.

General Electric TEMPO, 1967-68, Technical Computer

Programmed in FORTRAN and BASIC. Co-authored a technical manual.

PROFESSIONAL AFFILIATIONS

Association for Computing Machinery
Association for Corporate Growth
Institute of Electrical and Electronics Engineers:
- Computer Society
- Consultants' Network

Independent Computer Consultants Association (Past President, Los Angeles Chapter)
Institute of Management Consultants (Past President, Los Angeles Chapter)
Technology Council of Southern California
Southern California Biomedical Council

PUBLICATIONS/PRESENTATIONS

Chock, M. I., “Information Technology for Startups”, UCLA Technology Incubator (to be presented 7/09)

Cosgrove, John, and Chock, M. I., “Engineer as Forensic Expert: What is the Role of the Engineer in Litigation?”, IEEE - Buenaventura Section (2/07)

Chock, M. I.; "GIS-induced reengineering, or, What is the GIS doing to your organization?,” URISA Southern California Conference (3/95).

Chock, M. I..; “Using technology in your practice,” IMC Consultants’ Western Confab (11/93).

Chock, M. I.; "The other costs of geographic information systems," GIS/LIS '90 Proceedings, Vol 2, pp. 526-531 (11/90).

Chock, M. I.; Cardenas, A. F.; and Klinger, A.; "Database structure and manipulation capabilities of a Picture Database Management System (PICDMS)," IEEE Transactions on Pattern Analysis & Machine Intelligence, Vol PAMI-6, No. 4, pp. 484-492 (8/83).

Chock, M. I., "PICDMS: a general-purpose geographic modeling system," 5th International Symposium on Computer-Assisted Cartography, Washington, D. C., American Congress on Surveying and Mapping (8/82).

Chock, M. I.; and Klinger, A.; "A new approach to computer network cost modeling with medical applications," World Congress: Medical Informatics and Developing Countries, Mexico City, 2/82, to be published in Medical Informatics and Developing Countries, ed. by de Talens, A. Fernandez; Molino, E.; and Shires, D. B; North-Holland Publishing Co., Amsterdam.

Chock, M. I., A Data Base Management System for Image Processing, Doctoral Dissertation, Department of Computer Science, UCLA (1982).

Chock, M. I.; Cardenas, A. F.; and Klinger, A.; "Manipulating data structures in pictorial information systems," Computer, Vol. 14, No. 11, pp. 43-50 (11/81).

Chock, M. I., Field Problems with Irregular Boundaries: Modifications of PDEL, Masters' Thesis, UCLA (1977).