

FRANK MERRITT BRASWELL

Systems of Merritt, Inc.
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BACKGROUND SUMMARY

Since 1980, broad-based technical experience and project management skills have been developed in several industries including energy industry research, print industry product development, upper atmospheric research, financial markets analysis and medical records analysis research. Providing innovative custom hardware and software solutions is the theme that runs through each project. Information on specific projects can be found at <http://www.systemsofmerritt.com/>.

EDUCATION

- B.S. in Physics & Mathematics with minor in Computer Science, Jacksonville University, 1978. Graduated Summa Cum Laude.
- M.S. Electrical Engineering, University of Illinois, 1981.
Thesis: Rocket-Borne Microprocessor-Based Experiment for Investigation of Energetic Particles in the D & E Regions

INDUSTRY EXPERIENCE

- Energy Industry Control Systems & Instrumentation – Designed, built, programmed and tested controllers for high-pressure oil & gas pumping systems for Impact Technologies LLC, 2009. Developed electronics for acquiring down-hole pressure data in the Nojak Pumping Solutions artificial lift system, 2007. Designed, built, programmed and tested digital control system for hydraulic vibrator systems used for on-shore and offshore oil exploration at Conoco, 1981-1985. Received field experience with on-shore and offshore seismic data gathering, well logging and drilling.
- Grant Writing – While at Taylor University, attended grant writing workshops, and assisted in the administration and submission of grants to various agencies, including NSA, NASA, Stripper Well Consortium (SWC), Lilly Foundation, Air Force Research Labs and others.
- Print Industry Contributions – Since the late 1980's numerous contributions have been made in this area, centered on Adobe Systems technologies and products. Books, seminars, commercial software products, and custom software projects have been created to serve the needs of this industry. Developed project specifications, customer contracts and managed development of numerous software projects for both PC and Mac platforms.
- Upper Atmospheric and Space Science Instrumentation – Designed, built, programmed and analyzed data from rocket-borne microprocessor experiment at the University of Illinois, 1981. Worked on initial instrumentation hardware gate-array design for SEPS project at Lockheed, 1990.
- Expert Witness for Patent Litigation – Served as an expert witness on PostScript language software matters for defendants Harlequin and ECRM in a patent litigation trial, 1997-1998. Reviewed related patents, documentation, software listings, and court testimony to form an opinion on patent validity and infringement issues. Testified during the trial in 1998. Was contacted by Xerox Labs in 2005 regarding possible use as an expert witness in variable data printing matters. Reviewed several patents for them. Served as an expert witness in two separate patent litigation cases for R.R. Donnelley & Sons Company in 2007-2008. Reviewed patents, court documents, analyzed software programs and produced an expert report.

- Commercial Product Development – Managed project for hand-held computer Bible at VBI in 1987. Performed hardware design using embedded microprocessor and programmable gate arrays. Supervised software development team. The project was seen through the working prototype phase.
- Technical Analysis of Financial Markets – Conducted research on the use of advanced adaptive filtering techniques to study and track the movement of equity markets using the TradeStation platform, 2001-2004.
- Medical Records Analysis – Conducted research on the parsing and analysis of transcribed patient records, Desert Medical Group, 2002-2006. Over 20,000 records were analyzed and converted from Microsoft Word format into Adobe Acrobat pdf format. The analysis results, including information about chief complaint, diagnosis, medications, vitals, care provider, etc., from each record were attached as metadata to the individual pdf files.

PATENT, PUBLICATIONS & SEMINARS

- *Inside PostScript*, Author, Systems of Merritt, Inc. & Peachpit Press, 1989, ISBN 0-938151-10-X, 310 pages. Detailed analysis and documentation of the Adobe PostScript language interpreter.
- *PostScript Interpreter Research Report*, Author, Systems of Merritt, Inc., 1994. Engineering analysis of PostScript language RIP architecture performance. Timing measurements of each PostScript language operator were made and analyzed relative to CPU speed and memory architecture. Comparisons were then made between different PostScript language interpreters.
- PostScript Concepts Seminar, Author and Presenter, 1990 to 2000. One and one half day seminar teaches PostScript language concepts and debugging techniques.
- United States Patent 4,857,919, Method and Apparatus for Indicating the Position of a Variable Differential Transformer.
- *Rocket Measurement of Energetic Particles in the Midlatitude Precipitation Zone*, with H.D. Voss and L.G. Smith, COSPAR Space Research, Bangalore, India, Volume 8, p. 149-152, 1980.
- *Rocket-Borne Microprocessor-Based Experiment for Investigation of Energetic Particles in the D & E Regions*, with L.G. Smith, Aeronomy Report 96, Department of Electrical Engineering, University of Illinois, Urbana, Illinois, Library of Congress ISSN 0568-0581, 1981.

WORK HISTORY

- Systems of Merritt, Incorporated: President, Mobile, Alabama, Dallas, Texas & Upland, Indiana, 1989 to present.
- Taylor University: Assistant Director, Center for Research & Innovation, 2006 to 2008.
- Taylor Publishing Company: Principle Engineer, Dallas, Texas, 1995 to 1999.
- QMS: Member Technical Staff, Mobile, Alabama, 1987 to 1989.
- VBI: Vice-President Research & Development, Broken Arrow, Oklahoma, 1986 to 1987.
- Conoco: Research Engineer, Ponca City, Oklahoma, 1981 to 1986.
- University of Illinois: Research Assistant, Urbana, Illinois, 1978 to 1981.