## RESUMÉ

# FRANK MERRITT BRASWELL

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http://www.systemsofmerritt.com

#### **EXPERIENCE:**

Management: Project Specifications, Grant Writing, Proposal Writing, Hardware and Software Project Management, Budgeting, Equipment and Parts Procurement, Patent Considerations, Engineering Validation Testing

Hardware: iPhone, MSP430, eZ430-RF2500, Delta RMC Controllers, Maple System Display Panels, V40, 8086, 8089, Z80, Multibus, PC Bus, Altera Programmable Logic Devices, Transducers (displacement, pressure, temperature, acceleration, magnetic), Optical Encoders, High Density LCDs

**Test Equipment and CAD Systems:** Apple Xcode, IAR Embedded Workbench, Delta RMC Tools, EasyBuilder 5000, NI LabView, NI Multisim, Autodesk Inventor, Aoyue 2702 SMT Rework Station, Tektronix 8561 Microprocessor Development System, Sophia Systems V40 Emulator, Tektronix 1240 Logic Analyzer, Tektronix DAS, FutureNet DASH Schematic Designer, Altera A+Plus

Computer Languages and Operating Systems: Perl, Easy Language, Objective C, C Language, PostScript, Pascal, FORTRAN, APL, PL-I, Symphony, Assembly Language (Z80, 8086, 8089, V40), Unix, CP/M-86, VRTX, MS-DOS, Data General AOS, CDC Cyber NOS, VAX VMS

Industry Training Classes Presented: PostScript Concepts, Practical Imaging

Short Courses: Grant Writing, Business and Technical Writing, Managing Personal Growth, Building Influence Effectiveness, Basic Well Logging, Seismic Domain, Seismic Processing, Digital Control Systems, Digital Signal Processing

### **EDUCATIONAL RECORD:**

M.S. in Electrical Engineering received 5/81, University of Illinois, GPA = 4.742/5.0

B.S. in Physics/Math received 4/78, Jacksonville University, GPA = 3.954/4.0, Graduated Summa Cum Laude

Attended Oral Roberts University, 9/73-5/75, GPA = 3.356/4.0

### **EMPLOYMENT HISTORY:**

Systems of Merritt, Inc.: President, Mobile, AL, Dallas, TX, Upland, IN, 5/89-Present
Authored and published Inside Postscript, LaserCheck and the Advanced Postscript Error Handler. Consulted with Lockheed Missiles and Space Company, Inc. on the hardware and software development of an energetic particle satellite experiment
Contract Clients: Hallmark Cards, Friesens, PIA/GATF, EPSON, MGI Color, E-Spec, Wellness Works, Berry Plastics
Patent Litigation, Expert Witness on PostScript language publishing matters: Harlequin (Global Graphics), ECRM defendants, 97-98; RR Donnelley, plaintiff 2007

**Taylor University:** Assistant Director, Center for Research and Innovation, Upland, IN, 7/06-5/08
Assisted with grant administration, writing and research. Grant agencies worked with included Lilly Foundation, NASA, NSF, Stripper Well Consortium (SWC), Air Force Research Labs (AFRL), Office of Naval Research (ONR) and Indiana Space Grant Consortium (INSGC). Managed, designed and implemented hardware and software for SWC grants involving downhole data acquisition and logging.

## Taylor Publishing: Principle Engineer, Dallas, TX, 12/95-3/98

Developed and deployed yearbook printing workflow acceleration software and systems. This included plug-ins for Adobe products to enhance operator handling of yearbook pages, and PostScript language file processing to automatically insert images into yearbook pages.

QMS: Member Technical Staff, Mobile, AL, 8/87-5/89

Established engineering validation test procedures and bug reporting for QMS PostScript laser printers including JetScript, CanonScript, PS 800+, PS 800II, PS 810, PS 820, PS 1500, ColorScript 100, and PS 2200. This included engineering testing through alpha and beta software releases, plus working with customer service, sales and marketing as products were introduced. Other responsibilities included resolving product problems with outside software suppliers and vendors such as Hewlett-Packard, Canon, NBI, and Adobe Systems.

VBI/NCC: Project Director, Broken Arrow, OK, 6/86-6/87.

Developed a desktop publishing system for NCC. Conducted the technical research and helped write the proposal for a hand-held computer Bible project In 12/86 we received venture capital funding and formed VBI Managed the efforts of two C Language

programmers and a technician, plus designed all the hardware for the hand-held computer Bible. Specified the VRTX real-time operating system and assisted the programmers with its implementation. The project was carried through proof of concept with the construction of three engineering prototypes. Equipped a microprocessor development lab with over \$60,000 of test equipment.

Conoco: Research Engineer, Ponca City, OK. 6/81-5/86.

Designed and field tested microprocessor-based servo-hydraulic control systems for three different land seismic sources. Designed and field tested a special purpose microprocessor-based sweep generation system for a marine seismic source. The above multiple microprocessor systems were based on an 8086 single board computer and custom 8089 data acquisition boards which I designed. Wrote the system software in C Language and assembler and used VRTX as my real -time operating system. Equipped a digital electronics lab with over \$200,000 of test equipment including a microprocessor development system.

University of Illinois: Research Assistant/Teaching Assistant, Urbana, IL, 8/78-5/81.

Designed, built, and tested a rocket-borne microprocessor system to collect energetic particle data in the upper atmosphere. Wrote the system firmware in Z80 assembly language. Three identical systems were flown during the Energy Budget Campaign in Kiruna, Sweden in the winter of 1980. Post processing of the flight data was also completed.

Oral Roberts University: Programmer-Analyst, Tulsa, OK, 5/78-8/78.

Wrote PL-I and FORTRAN programs on a Data General Eclipse Minicomputer, which became part of the ORU budgeting and inventory software systems.

**Jacksonville University:** *Computer Lab Assistant,* Jacksonville, FL, 6/77-4/78. Assisted students with FORTRAN and APL programming projects on an IBM 370.

Creations of Merritt: Owner, Manager, Master Leather Craftsman, Tulsa, OK, 9/74-9/76.

Established the business in a commercial location at the beginning of my sophomore year at ORU. Closed the business to complete my education.

### **PATENTS:**

Four Invention Conception Reports were submitted while at Conoco. One utility patent was filed. One design patent was filed while at VBI.

United States Patent 4,857,919, Method and Apparatus for Indicating the Position of a Variable Differential Transformer.

#### **PUBLICATIONS:**

Rocket Measurements of Energetic Particles in the Midlatitude Precipitation Zone, with RD. Voss and L.G. Smith, COSPAR Space Research, Bangalore, India, Vol. 8, p. 149-152, 1980

Rocket-Borne Microprocessor-Based Experiment for Investigation of Energetic Particles in the 0 and E Regions, with L.G. Smith, Aeronomy Report 96, Department of Electrical Engineering, University of Illinois, Urbana, Ill., Library of Congress ISSN 0568-058 1, 1981

Inside PostScript, Mobile, Alabama: Systems of Merritt, Inc. and Peachpit Press, Inc., 1989, ISBN 0-938151-10-X, 302 pages.

Advanced Postscript Error Handler, Mobile, Alabama: Systems of Merritt, Inc., 1989.

LaserCheck, Mobile, Alabama: Systems of Merritt, Inc., 1991.

### **ACTIVITIES:**

Member: Stripper Well Consortium (SWC) Honorary and Technical Societies: Sigma Pi Sigma Awards: Outstanding Young Men of America, 1985 Social and Other Extracurricular Organizations: Upland Community Church Stewardship Committee Substitute Physics teacher at The King's Academy

### **REFERENCES:**

Available upon request.