

Name: Lon Westfall

Fields of Interest and Experience:

- Data acquisition software and hardware design.
- Instrumentation research and development.
- Circuit and circuit board design, analog, digital, software.
- Embedded systems, hardware and software design and development.
- Taking products through safety certification.
- Three dimensional graphics software development on Windows and Silicon Graphics systems.
- Expert assembler, C, and C++ programmer.
- Flow Cytometry, Electro Pneumatics, Electro Fluidics, Micro Fluidics, Electrostatics, Optics

My experience engineering systems includes the full life cycle. Requirements analysis, cost benefit analysis, subsystems R&D, prior art discovery, documentation, team building and coordination, training, design for manufacturability, safety testing, and protection of intellectual property. In my time with MRL I've become familiar enough with deposition systems to start designing and adapting systems for more automated and maintenance free use within the central facilities.

While electronics is my vocation, my avocation is aerospace. I am a member of a local hobby club that builds and flies model and high power rockets. I work with my club members to teach aerospace to all age groups and regularly assists UI students in their projects and most years help the AE100 class.

Core of responsibility within MRL:

Development/Operation/Training/Maintenance of equipment pertaining to thin film vapor deposition. Advice and assistance on all things electronic.

Education:

B.S. in Electrical Engineering from Southern Illinois University

Highlights of My Professional Experience:

2012 – Present	Research Engineer, Central Research Facilities, Frederick Seitz Materials Research Laboratory, University of Illinois, Urbana, IL
2000 – 2010	Principal Engineer R&D and product development of state of the art Flow Cytometers, iCyt Visionary Bioscience, Champaign, IL
1996 – 1998	Computer Games Programmer for Sim City 3000 and SimCopter, Maxis/Electronic Arts, Walnut Creek, CA
1994 – 1996	Tester /Programmer /Electrical Engineer for Microsoft Flight Simulator and related titles, BAO, Champaign, IL
1990 – 1994	Owner, Design and documentation services for Cable Television systems, Paradigm CATV Services, Urbana/Champaign, IL
1981 – 1988	Electronic Technician while attending the university as an undergraduate Computer Engineering Student, University of Illinois Nuclear Physics Laboratory, Champaign, IL

Recognition:

Inventor on over 30 patents pertaining to Flow Cytometry