████████████████████

Little Rock, AR   ██████████

███@███████.com

2010-2012, Director of Engineering, ████████████████████

2005-2010, Vice-President of Engineering, ███████████

2005 MBA, University of Arkansas at Little Rock

2001-current Independent Contractor, DBA Phantron

2000-2001 Electronics Team Leader, SeQual Technologies

1996–2000 Firmware Engineer/Engineering Manager ARMA Design

1996 BS Computer Engineer Technology, University of Arkansas at Little Rock

1995–1996 Firmware Engineer, Uniforce Technologies

Responsibilities and roles:

Operated within many industries including consumer, industrial, military, medical, and aerospace

Managed a $1M/year contract engineering department

Directly involved with all phases of product development, including proof of concept, prototype, production

Responsibilities beyond technology development include budgeting, personnel, business planning, sales and marketing efforts

References available on request

Completed projects; both as member of engineering staff and management:

1. Wireless weapons based user interface for military research project, including embedded USB host, wireless communications hardware and protocol firmware, and 32-bit microcontroller based USB device for interface with standard PC architecture. System demonstrated for secretary of defense in 2010. (████████)

2. Infrared target designation and illumination laser for military contractor. (Optics 1)

3. Laser source for shipboard jet fighter maintenance program. (████████)

4. Receiver and convertor for ground reception of drone surveillance video. (L3 Communications)

5. Corporate wide web based engineering parts and project management system.

6. Internet enabled gateway for hot tub; hardware and firmware. (Watkins Manufacturing)

7. Electronic chemical light-stick replacement for military applications.

8. Firmware for solid state flight vertical gyro, for military drone. (Remec, acquired by Goodrich)

9. Covert high-powered helmet mounted strobe for military applications. (███████████)

10. Firmware for remote control of surveillance camera for border use. (NSM Surveillance)

11. Hardware and firmware for controller for medical oxygen concentrator. Calculated oxygen concentration and flow based on time of flight ultrasonic measurement. Required FDA 510(k) certification. (SeQual Technologies, acquired by Chart Industries)

12. Base station for downloading cell-phone GPS data and transmitting to server, part of house arrest monitoring system.

13. Power line communication control for ceiling fans. (Hunter Fan)

14. Hardware and firmware for PC game controller for major gaming accessory manufacturer (Mad Catz).

15. Hardware and firmware for in-store advertising kiosk, including UL/TUV and FCC approval.

16. Power line control interface for hot tub. (Watkins Manufacturing)

17. Wireless/RF control interface for hot tubs; hardware and firmware. (Watkins Manufacturing)

18. LED aircraft landing light replacement. Hardware required to meet FAA DO-160.

19. Automated wiring harness tester.

20. Microcontroller based live well timer for fishing boats.

21. Firmware for high brightness display center for custom boats.

22. PLD based controller for soft serve ice cream machine.

23. Intelligent display for large capacity back-up tape drives; hardware and firmware; numerous versions.

24. Baseball pitch speed calculation device; low cost hand held device like stopwatch. Microcontroller based, hardware and firmware; numerous product updates; device in production for over 12 years.

25. Strain gauge data logger for manufacturing process monitoring. (HP)

26. In car lap timing system for competition auto.

27. High precision odometer for performance rally racing autos.

28. Microcontroller based replacement for electro-mechanical counter; used in gaming industry, read by wireless/IR system.

29. Microcontroller based game side device for player tracking and automated gaming accounting system.

30. Electronic dog training collar with ultrasonic irritant and sampled voice command, hardware and microcontroller firmware.

31. Microcontroller hardware and firmware for performance automotive nitrous oxide controller; device was added to auto's existing fuel injection control system.

32. Electronic leftover monitor for home refrigerators (consumer product).

33. Firmware update for spa controller. (Watkins Manufacturing)

34. FPGA design for camera manufacturer. (Cohu)

35. Firmware update for remote camera control system for firm specializing in sporting event coverage.

36. Automatic light dimmer for power savings requirement for standard light bulbs. (Hunter Fan)

37. Controller hardware and firmware for agricultural robotic system.

38. Status monitoring and indicating system for shipping container.

39. Microcontroller based device and algorithm for calculating and logging alcohol concentrations based on communication with industrial flow meter.

40. Communications hardware and firmware interface for turbo vacuum pump for semiconductor foundries. (Shimadzu)

41. Web enabled microcontroller based IP status monitor.

42. USB enabled accelerometer device for physical therapy system.

43. Software for power line communication enabled grill. (Vendor for McDonald's)

44. Software for power line communications enabled oven. (Vendor for McDonald's)

45. Software package for communications interface for industrial level solar power invertors. (SMA America)

46. Display and controller for medical cardiac instrument. (Medtronic)

47. One-off field expedient microcontroller based wave file playback device.

48. Proof of concept hardware for non-DPSS green laser weapons sight utilizing standard military battery.

49. Microcontroller based smart LED bargraph replacement.

50. PWM/standard hobby servo control convertors.

51. Lead acid battery conditioner.

52. Custom surveillance video switch.

53. Automated wireless alarm repeater with sound sample playback.

54. Microcontroller based fuel injector test and cleaning system.

55. RF data link for low velocity military projectiles.

56. PC side software package for communicating with embedded wireless mesh network.

57. USB embedded wireless mesh network interface.

58. Electronic distraction devices for police and military applications.

59. Acceleration logger system for weapons applications.

60. Electronic illumination device for military man portable launcher.

Additional activities:

Member IEEE

Volunteer firefighter, Arch Street Fire Department (since 2006)

Member Sports Car Club of America since 1996; campaigned performance rally car 2000-2002, personal best finish class win at Rim of the World ProRally, 2000

Innovation Judge, Donald W. Reynolds Governors Cup, since 2008

Member of University of Arkansas at Little Rock EIT advisory board, since 2007

Advisor to Central Arkansas Innovator's Alliance

Krav Maga student