



Blue Sky Labs Company Resume

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Key Areas of Expertise

- New Product Development
- Cost Optimization
- Embedded Systems Development
- Software Development
- Artificial Intelligence
- Real-time Systems
- Protocol, Algorithm Implementation
- Systems Integration

BSL Roles

- Project Specification Development
- Hardware Design
- Embedded Software
- Interface Design
- Graphical User Interface (GUI) Design
- Case / Mechanical Design
- Manufacturing Consulting
- Driver Design
- Application Software Development
- Web Design
- Database Design

Design Projects

Medical / Healthcare

- *netwave*[™] Interferential Stimulator with Internet Compliance
 - 2-channel interferential electrotherapy device.
 - Delivers interferential electrotherapy to patients suffering muscle pain and injury.
 - Logs and reports patient usage for therapy compliance monitoring.
- DeviceData.com Compliance Database and Reporting System
 - Web-enabled platform for logging, monitoring, and reporting patient therapy compliance.
 - Reduces cost of healthcare by reducing patient non-compliance of home therapies.
 - Easily expandable to support new products.
- NTS2 Interferential Stimulator
 - 2-channel interferential electrotherapy device.
 - Delivers interferential electrotherapy to patients suffering muscle pain and injury.
- Video Conferencing System
 - An experimental video conferencing system aimed at connecting the elderly with their families.

Home Automation

- LCD Pool Controller
 - LCD-based Graphical User Interface (GUI) for controlling home automation functions using X10.
 - Devices run Linux operating system and can be customized for different applications. Options include other LCDs and network protocols.

Telecommunications

- FaxLink
 - PCI fax-interface card for providing computer control of a fax machine
 - Manufacturing Consulting
- Win32 Implementation of G.723.1 speech compression codec
 - Implementation of industry standard compression algorithm for Voice over IP (VoIP)
- Phone-Link 1-port VoIP gateway
 - USB 1.1 device for enabling standard telephones to place and receive Internet Calls
- Net2Phone Proprietary Protocol Stack
 - An implementation of Net2Phone's protocol for placing and receiving Internet calls

Services Provided

Hardware Design

- System Integration
- Analog design
 - Audio Engineering
 - FXO, FXS (POTS integration)
- ASIC / FPGA / CPLD Design
- BOM Cost Optimization
- Cost Optimized Layout
- Design for Certification
 - FCC Part 15A, 15B
 - FCC Part 68
 - Underwriter Labs (UL)
 - USB v1.1, v2.0
 - Microsoft Windows Logo Program

Web Development

- Database development
 - Interface development

Embedded Software Development

- Development on variety of platforms
- Languages
 - Assembly, C, C++, Java
 - Mixed Mode Programming

PC Software Development

- GUI Development
 - MFC, (D)COM, .NET, ADO
 - Tcl/Tk (Itcl, tix)
 - GTK+
 - Cross Platform Development Customized to Platform
- Engineered for Usability
- Customizable GUI's
- Kernel Level programming
- Driver development
 - WDM Drivers
 - Windows 95,98,98SE,ME
 - Windows NT 4.0, 2000, XP
 - Linux

Areas of Expertise

Standards

- Universal Serial Bus
 - USB v1.0, v1.1, v2.0
- Ethernet
 - 10Base, 100Base, Gigabit
 - Fiber or copper
- IEEE1394A (Firewire)
- Wireless Protocols
 - BlueTooth, 802.11
- Poweline Networking
 - X10, HomePlug
- Internet Protocol (IPv4, IPv6)
 - TCP, UDP
 - Network Address Translation
 - SSL, IPsec
 - Quality of Service (QoS)
 - Multicast, IGRP
- Internet Telephony
 - RTP, RTCP
 - H.245, H.323 v2.0, SIP, MGCP
- ITU Compression
 - G.723.1A, G.729, G.711

Artificial Intelligence

- Reasoning / Classification
- Machine Learning
- Language Parsers/Analyzers/Generators
- Information Retrieval Systems
- Languages
 - LISP
 - Prolog

Embedded Platforms

- Microcontrollers
 - Intel/AMD/Other 8051, 80251
 - Motorola M68k, Coldfire
 - Zilog Z80
 - Atmel AT90xxx
 - Microchip PIC
 - Various USB Microcontrollers
- Digital Signal Processors (DSPs)
 - Motorola
 - 563xx, 568xx
 - Analog Devices
 - ADSP-218x
 - ADSP-219x
 - SHARC

Operating Systems

- Consumer OS's
 - Windows 98, ME, 2000, NT
 - Apple OS 9, OS X
 - Linux 1.x, 2.x
 - BeOS
- Embedded OS's
 - Linux 2.x
 - Windows CE
 - BeOS

Databases

- MS SQL, MySQL, PostgreSQL
- Oracle v7.x, v.8.x
- MS Access