



Justin Dean

Oklahoma Phone: (405) 230-0415

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OBJECTIVE

I am writing to express my interest in contributing to your organization in a Senior Leadership or Technical Consulting capacity, particularly in SCADA Systems, Automation Engineering, and Digital Transformation Solutions. With a career span of over two decades, I bring a wealth of knowledge and experience that uniquely positions me to support your organization in achieving its goals.

Having transitioned from the day-to-day operations of my companies, including serving as CEO at Sahoma Controlware LLC., I am now focused on leveraging my expertise to help organizations thrive. My career has been defined by a passion for developing innovative solutions in automation and control systems across industries such as oil & gas, water/wastewater, and aerospace. This experience has honed my ability to lead teams, deliver complex projects, and implement transformative solutions that exceed expectations.

I am eager to bring my technical expertise in SCADA Architecture, Automation, Machine Learning Software Development, and Systems Integration, along with my leadership skills, to your team. I am confident that my contributions will help drive innovation, operational excellence, and sustainable growth within your organization.

Enclosed is my resume, which provides further details about my professional journey and accomplishments. I look forward to discussing how my background aligns with your organization's needs and how I can contribute to your continued success. Thank you for considering my application. I am excited about the possibility of collaborating with your team.

Sincerely,
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AREAS OF EXPERTISE

Hardware Engineering

Expertise includes electrical and electronics design, embedded electronics circuit design, circuit board layout, and embedded firmware design. This area focuses on developing robust and efficient hardware solutions tailored to various industries and applications.

Software Engineering and Development

Skills encompass software and firmware programming, iOS application development, OPC server drivers and tools development, industrial software solutions, and web and Windows services. Proficient in advanced technologies such as video stitching, machine learning, artificial intelligence, blockchain, IIoT/IoT client and broker development, Windows Azure, and IoT Hub. Cybersecurity analytic systems and comprehensive software solutions are also a focus.

Systems and Project Engineering

Specialization includes process safety design, process loop design, instrumentation design, installation design packages, equipment specification and procurement, unified namespace development, and control room management schemes. These efforts support scalable and sustainable project solutions.

Power Systems Engineering

Focus areas include high voltage supply design, project management, construction management, and start-up and commissioning. This specialty ensures safe and efficient operations for complex power systems.

Automation and SCADA Engineering

Proficient in control system design, SCADA system architecture and design, control system programming and configuration, and SCADA and HMI programming. This expertise enhances operational efficiency and system reliability.

Industrial IT

Experience in network infrastructure design, network appliance configurations, and cybersecurity assessments. These skills ensure robust and secure IT solutions tailored to industrial environments.

Documentation Development

Comprehensive expertise in technical documentation for engineering designs, control narratives, process descriptions, and the development of detailed reports and manuals to support seamless operations and compliance.

Management

Capabilities include overseeing construction, start-up, and commissioning processes, as well as providing effective leadership for engineering teams and project execution.



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HARDWARE AND SOFTWARE COMPETENCIES

Software Expertise

Proficient in automation platforms such as CODESYS, TwinCat, Telepace Studio, Unity Pro XL, RS Logix, Studio 5000, Simatic Step 7, TIA Portal, LabVIEW Real-Time, and G.E. Proficy Machine Edition. Extensive experience with SCADA systems, including Ignition Vision and Perspective, FactoryStudio, Iconics Genesis 32/64, LabVIEW, Wonderware Intouch, Wonderware System Platform, FactoryTalk ME/SE, G.E. Proficy iFIX, Telvent/OASys, Clear SCADA, and Cygnet. Development expertise spans Visual Studio.NET (Visual Basic, C#, C++), Visual Studio Code, C, Python, Java, JavaScript, OpenCV, TensorFlow, and Django. Skilled in engineering tools such as AutoCAD, AutoCAD Electrical, Autodesk Inventor, SolidWorks (including Electrical and Flow Simulation), and Altium Circuit Board Designer. Additionally, experienced in IIoT/IoT solutions using HiveMQ, Mosquitto, Cirrus Link, EMQX, and Azure IoT Hub. Historical data management and visualization expertise include Ignition, FactoryTalk, Wonderware, OSI PI, Iconics, CanaryLabs, and InfluxDB. Database management capabilities include SQL Server, MySQL, Postgres, and Supabase.

Hardware Expertise

Comprehensive knowledge of PLC/RTU hardware from manufacturers such as Allen Bradley, Siemens, G.E. Fanuc, Beckhoff, Modicon, and ABB. Expertise extends to platforms like NI CompactDAQ, NI Compact FieldPoint, NI CompactRIO, Direct Logic, Wago, Phoenix Contact, Opto22, Bedrock Automation, ABB Total Flow, SCADA Pack, Fisher Roc 107/800, Spirit IT (FlowX), and CTI and Keltronics Controllers. Advanced skills in working with modern hardware solutions such as NVIDIA Jetson TX2, Raspberry Pi, MX Chip IoT, UDOO, and ESP32. Proficient in DCS hardware from Emerson Delta-V, Honeywell, ABB, Yokogawa, Foxboro, Rockwell Automation PlantPax, Toshiba TOSDIC, GE Matrix, and Bailey.

Protocol Expertise

Deep understanding of PLC/RTU communication protocols, including Ethernet/IP, Modbus RTU/TCP, EtherCAT, Profibus/ProfiNet, ControlNet, DeviceNet, HART, Fieldbus, and NI-VISA. Equipment communication proficiency in RS-485, RS-232, RS-422, J1939, CAN, 1553, and various proprietary OEM protocols. Skilled in SCADA protocols such as OPC DA and OPC UA, as well as IIoT/IoT standards including DNP3, MQTT, and MQTT Sparkplug.



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PROFESSIONAL HISTORY

Senior Engineer & Developer | Enterprise Scada (Contractor)

Colexas Digital Inc. | Houston, Texas | March 2024 – November 2024

Development and Configuration of SCADA Systems

- Provided design, development, and configuration of the Midstream Enterprise SCADA System using Ignition SCADA as the primary platform, tailored for client's operations.
- Developed and deployed SCADA solutions for 40 remote locations, including a centralized Ignition Master Gateway, cloud-based Ignition Gateway, and Edge Gateways for remote connectivity.

SCADA System Migration

- Migrated existing PlantPax SCADA System to a standard Control Logix-based SCADA architecture, removing legacy dependencies and streamlining system operations.
- Updated and templated HMI screen and faceplate designs to ensure compatibility and operational efficiency post-migration.

Custom Development for SCADA Efficiency

- Created custom scripts and applications for managing JSON-based tag structures and automating tag import processes, aligning with engineering I/O lists and P&ID drawings.
- Configured and deployed ABB Totalflow RTU Drivers and Connections to enable seamless integration of remote RTU devices with the Ignition platform.

Process Visualization and Screen Development

- Designed and developed process screens for multiple project phases (1, 1.5, and 2) to support new equipment installations and process expansions.
- Delivered user-friendly and intuitive visual interfaces that enhanced real-time process monitoring and control capabilities.

Remote and Field Support

- Provided remote support for operations control rooms and field personnel, addressing and resolving issues related to gateway configurations, Vision Clients, HMI screens, and tag communication.
- Delivered training and troubleshooting guidance for field staff to ensure consistent system performance.

Startup and Commissioning Support

- Supported the **startup and commissioning** of new process phases, ensuring smooth deployment and integration of SCADA components across all remote locations.
- Respond to and resolved Microsoft Teams support requests, ensuring minimal disruption to operational workflows.

Project Management and Collaboration

- Collaborated with clients engineering and operational teams to prioritize deliverables, manage timelines, and meet project milestones for the phased implementation.
- Ensured documentation for all SCADA system modifications, including screen updates, gateway configurations, and custom scripts.



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Principal Software Engineering Consultant | Enterprise Scada (Contractor) Berkana Resources Corporation | Houston, Texas | January 2024 – August 2024

Development and Migration of SCADA Systems

- Conducted in-depth analysis of the existing OASys 7.5 SCADA system to determine a comprehensive migration path to the Aveva Enterprise 2024 platform.
- Migrated legacy HMI screens from OASys 7.5 to Aveva Enterprise 2024, ensuring compatibility and enhanced functionality.

Custom Application Development

- Designed and developed custom C#.NET applications to replicate and enhance the functionalities of critical components previously supported by OASys 7.5, such as:
 - **Remote Meter Proving Application**
 - **Remote Batch Monitoring Application**
 - **CUI Tank Test Application**
 - **JSH Permissive Application**

Documentation Development

- Authored comprehensive documentation for the project, including:
 - Code analysis reports.
 - Migration plans and solutioning pathways.
 - User manuals and training guides for the new Aveva Enterprise 2024 system.

Tag Structure and Data Handling

- Configured and optimized data structures within the SCADA environment, creating efficient mechanisms for handling large tag databases.
- Developed tools for streamlined data import and export, aligning with engineering I/O lists and P&ID drawings.

Support for Startup and Commissioning

- Provided remote support during system startup and commissioning, resolving configuration, communication, and functionality issues.

Collaboration and Communication

- Acted as a liaison between engineering, operations, and IT teams to ensure alignment of project deliverables with client goals.
- Delivered training sessions for operations and technical staff, ensuring a smooth transition to the new system.

API Development and Scripting

- Develop API interfaces using C#.NET, ensuring efficient data integration and system communication to the Aveva Enterprise 2024 Scada Platform.



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Executive Consultant | Principal Solutions Architect (Contractor)

UTSI International Corporation | Houston, Texas | April 2023 – January 2024

Leadership in Solution Architecture

- Lead the design and development of comprehensive solutions in the realm of Industry 4.0 technologies.
- Oversee the entire project lifecycle, ensuring alignment with client requirements and industry best practices.

Digital Transformation Guidance

- Guide and implement strategies for digital transformation, integrating advanced technologies into traditional industrial practices. This includes driving initiatives related to the Internet of Things (IIoT), real-time data analytics, and process automation.

Enterprise SCADA Solutions

- Develop and optimize SCADA (Supervisory Control and Data Acquisition) systems for Oil & Gas and Pipeline clients enterprise applications. Ensure these systems effectively manage, monitor, and control industrial processes.

Artificial Intelligence and Machine Learning Implementation

- Incorporate AI/ML algorithms to enhance process efficiency, predictive maintenance, and decision-making capabilities within industrial environments.

Software Development Oversight

- Direct the planning, development, and implementation of software solutions, including computer vision and embedded systems, tailored to client needs within the industrial sector.

API Development

- Design and develop APIs using C#.NET for the transmission of Ignition SCADA data to state agencies. Also, develop APIs for retrieving renewable energy state data for integration into SCADA systems.

Cybersecurity Strategy and Roadmaps

- Develop comprehensive 5-year cybersecurity roadmaps for clients, ensuring robust protection against evolving digital threats. Conduct tabletop sessions to assess and improve cybersecurity preparedness.

Software Requirements Documentation

- Create detailed software requirements documents for the upgrade and enhancement of crude oil pipeline applications. Ensure these documents clearly outline client needs and technical specifications.

Consulting and Client Engagement

- Engage with clients to understand their unique challenges and objectives. Provide expert consulting services to develop tailored solutions in automation, digital transformation, and Industry 4.0 technologies.

Innovation and Continuous Improvement

- Stay up to date on emerging trends and technologies in the industry. Foster a culture of innovation and continuous improvement within the team and the broader organization.

Team Leadership and Development

- Lead and mentor a team of engineers and architects. Encourage professional growth and skill development to ensure the team remains at the forefront of industry advancements.

Stakeholder Management

- Collaborate effectively with internal and external stakeholders, ensuring clear communication and alignment on project goals, timelines, and deliverables.



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Practice Lead | Enterprise Scada (Contractor)

CSE Icon, Inc. | Houston, Texas | November 2022 – April 2023

Development and Configuration of SCADA Systems

- Lead the development and configuration of large-scale SCADA systems, specifically a 500 well SCADA system using the Cygnet SCADA and Cygnet Edge Platform.

Migration of SCADA Systems to Cloud Platforms

- Create detailed cost estimates and proposals for potential clients and projects, ensuring accuracy and competitiveness.

Template and Asset Development in Cygnet

- Develop new facilities, assets, and templates within Cygnet Vision, Canvas, DDS, FMS, FS, and PS. Adapt to evolving drilling and construction schedules to keep the system up to date.

Support for Field and Maintenance Personnel

- Provide robust support to Greenfield, Brownfield, and maintenance personnel within the Electrical, Automation, Communications, and Artificial Lift disciplines.

Proof-of-Concept Development for Edge-to-Cloud Data Publishing

- Develop proof-of-concept solutions for publishing data from the edge to Microsoft IoT using MQTT/TLS protocols within the Cygnet Scada Environment.

Cyber Security Tool Development for SCADA Applications

- Develop and configure cyber security tools for monitoring Ignition SCADA applications, network and radio network appliances. Utilize APIs to gather data on hardware and software manufacturers.

API Development and Scripting

- Develop API interfaces using Node-Red and custom scripting in Node.js, ensuring efficient data integration and system communication.

Cyber Security Data Visualization on Splunk Platform

- Create a Cyber Security Data Visualization Application on the Splunk platform. Develop dashboards to monitor and analyze the entire industrial network's security status.

Fault Tolerant Solutions with Kubernetes Services Architecture

- Configure and manage a three-node fault-tolerant solution based on the Kubernetes Services Architecture. Ensure high availability and resilience of the system.

Node-Red Flows for System Redundancy and IP Digital Filtering

- Develop Node-Red flows to handle system redundancy and IP digital filtering. Determine primary and secondary Node-Red instances for optimal system performance.

Primary and Secondary Instance Control in Node-Red

- Develop controls within Node-Red to manage primary and secondary instances, ensuring smooth operation and failover capabilities.



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Practice Lead & Senior Engineer | Enterprise Scada CSE Icon, Inc. | Houston, Texas | February 2018 – November 2021

Engineering Studies and System Integration

- Conduct comprehensive engineering studies and system integration for Enterprise SCADA, Telemetry, Process Automation, Control Systems, Industrial IT, IIOT, Machine Learning, Software/Firmware, Instrumentation Systems, and Electrical Engineering Solutions within the Oil & Gas and Energy industries.

Development of Cost Estimates and Proposals

- Create detailed cost estimates and proposals for potential clients and projects, ensuring accuracy and competitiveness.

Project Scoping and Technical Specifications

Provide thorough project scoping and develop precise technical specifications. Collaborate with Business Development Managers, offering expert sales engineering insights.

Project Engineering in Industrial Automation

- Provide project engineering and system integration assistance in critical areas of industrial automation, including Critical Process Control Systems (SIL2/SIL3), Process Safety Systems, Distributed Control Systems, Discrete Manufacturing Control Systems, Motion Control Systems, Production Automation Systems, and Computer Vision Systems.

SCADA System Integration

- Provide project engineering and system integration support for various SCADA platforms, including Ignition, Factory Studio, Iconics, Wonderware System Platform, Cygnet, ClearSCADA, and FactoryTalk View Plant-Wide HMI/SCADA Systems.

IIoT System Integration and Development

- Lead the design and development of IIoT systems, focusing on architecture design, embedded system design and development, communications, and security protocols (such as MQTT/TLS), device to cloud integration, IIoT broker and client software development, and OPC Server to IoT Hub Integration.

Project Execution in Machine Learning & Artificial Intelligence

- Provide project execution and leadership in the Machine Learning & AI practice, focusing on software and model development for Oil & Gas well optimization, and artificial lift optimization & prediction.

Leadership and Team Collaboration

- Lead project teams and collaborate with other engineers and technical staff to ensure successful project execution. Foster a culture of innovation, efficiency, and continuous improvement.

Client Relationship Management

- Build and maintain strong relationships with clients, ensuring their needs are understood and met. Manage client expectations effectively throughout the project lifecycle.

Technical Training and Knowledge Sharing

- Provide technical training and knowledge sharing sessions to colleagues and junior engineers, promoting skill development and knowledge transfer within the organization.

Quality Assurance and Compliance

- Ensure all projects and solutions adhere to industry standards and compliance requirements. Oversee quality assurance processes to guarantee the reliability and effectiveness of solutions.



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Chairman & Principal Solutions Architect

Sahoma Controlware, LLC | Oklahoma City, Oklahoma | March 2013 - Present

Overall Executive Leadership and Company Direction

- Provide strategic leadership and direction for the company. Make key decisions that shape the future of the company, aligning with the vision and objectives.

Mentorship and Team Development

- Mentor engineers and developers, identifying areas for improvement and guiding them in enhancing their skills and knowledge. Foster a culture of continuous learning and professional growth.

Project Engineering and Design

- Lead the projects, design, and implementation of all projects, particularly in the areas of Digital Transformation, Business Intelligence, Industrial IT, Enterprise SCADA, Real-Time Data, IIoT, Automation & Control Systems, and Embedded Systems.

Schedule and Task Coordination

- Define and coordinate schedules and tasks for specialists and technicians. Ensure team efforts are aligned to meet project objectives and deadlines efficiently.

Technical Leadership for Branded Services

- Technical Leadership & engineering design, development, and programming for company's branded services, including TransformWorX™, IntelliWorX™, TechWorX™, ScadaWorX™, D8taWorX™, ConnectWorX™, ControlWorX™, and EdmbedWorX™. Ensure the company maintains its high standards of quality in all service areas.

Customer Site Visits and Project Walkthroughs

- Conduct site visits to perform project walkthroughs. Gain a thorough understanding of customer needs and expectations to inform initial design concepts.

Budgetary and Cost Estimation

- Develop comprehensive budgetary and fixed cost estimates for clients, clearly defining project scope, deliverables, and milestones. Ensure transparency and accuracy in all project estimations.

Client Relationship Management

- Build and maintain strong relationships with clients. Ensure their needs are understood and met, and that their expectations are managed effectively throughout the project lifecycle.

Strategic Planning and Innovation

- Continually assess market trends, emerging technologies, and customer feedback to steer the company's strategic planning and innovation efforts. Keep the company at the forefront of technological advancements in its service areas.

Quality Assurance and Standards Compliance

- Uphold the highest standards of quality in all projects and services. Ensure compliance with industry standards and best practices.

Resource Allocation and Budget Management

- Efficiently allocate resources across projects and departments. Manage budgets to maximize profitability while maintaining the quality and integrity of services.



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EDUCATION

Technical Degree, Electronics Technology

Central Area Vo-Tech / Oklahoma State University, Sapulpa, Oklahoma

Graduated: 1999

High School Diploma

Sapulpa High School, Sapulpa, Oklahoma

Graduated: 1997



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CERTIFICATIONS

Microsoft Certified Systems Engineer

Completed: 2001

Microsoft Certified Solutions Developer

Completed: 2001

NASA Microsoft Windows Server 2000 Certified Administrator

Completed: 2003

Microsoft Windows Server 2000 Certified Administrator

Completed: 2003

Network & Internet Security Certification

Completed: 2003

Panduit Certified Systems Integrator

Completed: 2013

Panduit Certified Network/Fiber Cabling Installer

Completed: 2013

TBOX Certified Solutions Specialist

Completed: 2014

Tatsoft Factory Studio Certified Integrator

Completed: 2020

Ignition 8 Credentialed

Completed: 2024



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TRAINING

AutoCAD Training

- AutoCAD 2000I
- AutoCAD Fundamentals
- AutoCAD Electrical Fundamentals

Well Completions and Petroleum Engineering (OU/Texas A&M)

- Well Completions and Performance
- Petroleum Engineering for Non-Well Completion Engineers

SCADA and HMI Platforms

- Iconics Genesis 32/64 Fundamentals
- Iconics Genesis 32/64 Advanced
- Wonderware Intouch Fundamentals
- Wonderware Intouch for Systems Platform Fundamentals
- Wonderware Application Server Fundamentals
- Wonderware Information Server Fundamentals

Rockwell Studio 5000 Logix Designer Training

- CCP146: Level 1 – Control Logix System Programming
- CCP151: Level 2 – Basic Ladder Logic Programming
- CCP143: Level 3 – Project Development
- CCP154: Level 4 – Structured Text/SFC Programming
- CCP152: Level 4 – Function Block Programming

Rockwell Automation

- Plant Pax Design and Implementation

Control Panel Design

- UL-508A Control Panel Design Fundamentals



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REFERENCES

Mr. Julian Francisco (BloomBox)

Phone Number: (405) 630-8251

Mr. Jon Sisk (Colexas Digital)

Phone Number: (972) 998-7054

Mr. Jeff Whitney (Berkana Resources)

Phone Number: (303) 859-4765

Mr. Shaun Six (UTSI International)

Phone Number: (832) 208-0028

Mr. Rich Wagner (CSE ICON)

Phone Number: (917) 783-4390

Mr. Gene Oon (CSE ICON)

Phone Number: (337) 256-9658

Mr. Ryan Haas (CSE ICON)

Phone Number: (281) 850-0797

Mr. Travis Pettyjohn (Panduit)

Phone Number: (405) 923-3105

Dr. Trevor Lane (Washington State University)

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