Justin Wright

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Skills

Technical Skills – Dynamic Simulation: Process Modeling, Process Tuning, Operator Training, Malfunction & Scenario Design, Control Logic Design| Engineering: Thermodynamics, Fluid Dynamics, Electrical and Instrumentation Engineering | System & Networking: System Architecture, Networking, System Integration, Backup Systems, System Security | Documentation: FDS, P&ID, One-Line, Instrumentation | Data: Data Structures, Data Warehousing, ETLs

Control Systems - Ovation, DeltaV

Software & Programming - Dynamic Simulation Tools: ProTrax, GSE Jade, 3KeyMaster, Mimic, DYNSIM, Emerson Embedded | Languages & Scripts: Python, SQL, Shell | Cloud Services: Amazon Web Services (SAA Certified) | Virtualization: VMware, VirtualBox | Source Code Management: Git, GitHub | IDE: VS Code, PyCharm

Experience

Cassper Simulation Solutions | Leawood, KS   *January 2012 – Present*
Principal Simulation and Systems Engineer
Simulator services for power generation and process industries

- Pioneered the development and delivery of one of the world's first multi-load, multi-unit virtual power generation simulators. This innovative solution was crafted using VMware in conjunction with ProTrax simulation software and Ovation DCS, marking a significant advancement in the field.
- Modeled, parameterized, tuned, and tested complex processes in the oil & gas and chemical process industry achieving a digital twin experience within a 5% tolerance of PI data which enhanced controls checkouts, improved operator training, and reduced downtime by 20%, adding substantial value to customer operations.
- Elevated to the role of a Subject Matter Expert in simulation, leveraging an array of leading-edge software packages (ProTrax, GSE Jade, 3Keymaster, DYNSIM, Emerson Embedded, Mimic) and control systems. Excelled in customizing solutions to align with clients' unique needs and served as a reliable single point of contact, ensuring superior customer satisfaction, and growing the customer base by 30%.
- Skillfully executed ETL processes, extracting data from intricate control system exports and transforming them into actionable I/O tables via SQL. This systematic approach was paramount in loading streamlined data into the simulation database, creating production-ready I/O tables, and ultimately driving data-informed decision-making and optimizing budgetary estimates by 10-20%.
- Significantly enhanced productivity by optimizing a variety of internal and customer-facing tools. Key improvements included the automation of model generation on GSE simulators using batch files, the creation of an intuitive customer interface and discrepancy report generation using VBA, and the integration of live simulator data with PI spreadsheets for real-time monitoring of critical data tolerance ranges via Excel APIs.
- Spearheaded multiple Factory Acceptance Testing (FAT) and Site Acceptance Testing (SAT) processes for simulator projects, guaranteeing meticulous testing, detailed discrepancy documentation, and strict compliance with technical scope, thereby ensuring project quality and client satisfaction

Honeywell FM&T | Kansas City, MO   *June 2011 – January 2012*
Electrical Engineer I
Manufacturing for Department of Defense Nuclear Stockpile

- Played a crucial role in upholding national security by contributing to the production of 85% of non-nuclear components for the nation's nuclear deterrent, thereby ensuring its reliability and safety.
- Awarded a Q-level security clearance, demonstrating trustworthiness, reliability, and discretion in handling classified information. Specific work details are subject to security limitations.

Education & Certifications

University of Missouri - Columbia | Columbia, MO   *2007-2011*
Bachelor of Science in Electrical Engineering – Minor in Mathematics

AWS Certified Solutions Architect – Associate   *2023*
Amazon Web Services
Credential ID: 5Y22CGYCXJ111K92