Chris Zarlengo

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Full Stack Web Developer and **Engineering** professional continually learning and developing new skills to utilize within an organization. Background in developing automated solutions for a world-class 24/7 manufacturing environment, including projects integrating machinery into an internet-of-things (IoT) system for viewing current status of operations in the factory.

TECHNICAL SKILLS
Front End: React, HTML, CSS, JavaScript, Handlebars, VBScript, API, jQuery, Bootstrap, Git
Back End: React, Node, MySQL, PostgreSQL, MongoDB, PHP, Python

PROJECTS
Operations Visual Monitoring - Flow International Corp.   github.com/Zarlengo/OperationsVisualBoard
- Visual monitoring system for management and operators displaying live status and metrics for the department by formatting and presenting SQL data retrieved from programs running within the section
- VBScript, JavaScript, SQL, HTA, HTML, and CSS

Attendance Website – Fairwood Martial Arts   github.com/Zarlengo/AttendanceWebsite
- API based website interface allowing instructors to check in clients with a clean and simple user interface.
- Designed around disconnecting instructors from the computer to a mobile device which connects to mindbodyonline.com using API calls to update the client information
- Interface simplified to a single touch to check in a client replacing a manual system constrained to the office.
- PHP, JavaScript, API, HTML, and CSS

Operations Tracking - Flow International Corp.   github.com/Zarlengo/OperationsTracking
- Integrated system which tracks serialized material throughout the factory by visually scanning part serial numbers and gathering operator information prior to sterilizing and uploading to a SQL server
- VBScript, JavaScript, SQL, HTA, HTML, and CSS

PROFESSIONAL EXPERIENCE

OMAX Corporation (Ultrahigh Pressure Cutting Devices)   2020 - Present
Senior Manufacturing Engineer
- Developed Node based software interface between prototype pumps and testing stations
- In preparation for production launch
- Integrated prototype system hardware into organizational testing stations as measured with a successful, bug free launch into production by developing a node based software interface to manage data collection and hardware control through IO signals.
- Managed multiple concurrent high value projects qualified by meeting all program milestones by ensuring tasks were prioritized and continually adjusting the program to align the schedule after issue developed

Flow International Corporation, Kent, WA   2012 - 2019
Manufacturing Manager (Lead Full Stack Developer)   2018 – 2019
- Developed real-time process monitoring system which reduced quality costs by 40% through networking all machines and designing a visual display for operators and management to see current program status
- Digitized manual data collection measured with unmanaged systems by converting excel sheets into a SQL database and developing VBS scripts to manage data verification and import information from operators
- Implemented real-time machine monitoring systems as measured by an increase of the number of quality parts between failures by linking inspection results into a SQL database allowing the development of a statistical process control (SPC) system to optimize offsets for part programs

- Effectively managed a team of employees quantified with meeting program and department metrics by managing performance reviews, interviewing, hiring, terminating, and administering disciplinary actions
- Grew a commercial business concept into a $2.5M annual revenue program running with 8% profit, 100% on-time delivery, and under 1% scrap rate by establishing a completely digital production processes which tracked parts and features allowing potential problems to be identified and addressed before impacting production
- Achieved a 30% savings in programs consumable costs by utilizing regression analysis on tool wear against the total allowable tolerance to maximize usage
- Improved employees' skills and capabilities as measured through successful completion of increasingly difficult projects and responsibilities by developing personal goals and areas of strengths and interests

Lead Manufacturing Engineer (Full Stack Developer)   2012 – 2018
- Successfully deployed engineering designs into production qualified with maintaining schedule milestones for delivery by developing complete assembly documentation which utilized risk analysis results to ensure risks were addressed or tested out of the system on the initial builds
- Designed and deployed an automated part marking system as measured with eliminating marking errors and 100% reliance on the machine by designing a system which processed live images and obtained relevant correlated information from an SQL database to mark parts correctly
- Increased program efficiency from 62% to 85% as measured by daily machine run time through integrating a preventative maintenance system into the operator's console to ensure parts were replaced before failure

Hexcel Corporation, Kent, WA   2010 - 2012
Design & Manufacturing Engineer / VBA Developer
- Increased on-time delivery from 54% to 89% as measured by delivery rate after 3 months from implementation by developing an excel macro to automate manual planning operations
- Reduced cost waste quantified by scrap and rework costs by employing statistical analysis in a design of experiments program relating production parameters to results to determine optimal formulas

ADDITIONAL EXPERIENCE
- **Project Engineer**, Aerojet-General Corporation, Redmond, WA
- **Project Engineer for NASA JSC,** Jacobs Engineering Group Inc, Houston, TX
- **Design Engineer / MRB Engineer,** Hexcel Corporation, Kent WA
- **Project Administration / Planning Intern,** The Boeing Company, Internship, Auburn WA

EDUCATION

Bootcamp Certificate in Full Stack Web Development, 2020
University of Washington, Seattle, WA

Bachelor of Science in Aerospace Engineering, Minor in Mathematics, 2005
Embry-Riddle Aeronautical University, Prescott, AZ

COMMUNITY INVOLVEMENT
- **Instructor / Supervisor,** Fairwood Martial Arts, Renton, WA, 2010 - Present
- **SAR Field Member,** King County Search and Rescue, Volunteer, 2018 - Present