

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

TECHNICAL SKILLS

Programming

C#, VB, IEC 61131-3 Programming Languages, JavaScript, C++, C, Python, CSS, HTML, JSON, XML, MQTT, REST, ASP.NET, xUnit, MS Test, NUnit

DevOps / Source Control

Azure DevOps, Git, GitHub, Copia, AssetCentre, Team Foundation Server (TFS), Visual Studio Team Services (VSTS)

IDE's

Rider, Visual Studio, IntelliJ, Visual Studio Code, WebStorm, SQL Server Management Studio (SSMS)

Other Software Tools

Mathematica, MatLab, LabView, Infoblox, Microsoft Office including Project and Visio, Microsoft Test Manager, Azure Data Studio

Automation Software

Studio 5000, RS Logix 5000, RS Logix 500, FactoryTalk ME, FactoryTalk SE, FactoryTalk Linx, Connected Components Workbench (CCW), TwinCAT, CoDeSys, SoMove, AS-I Networks, EcoStruxure Machine SCADA Expert, Mitsubishi GX Works3

Drafting / Design

AutoCAD Electrical, Bluebeam Revu, AutoCAD, Inventor, Autodesk Simulation Mechanical, SolidWorks, DraftSight

Hands On

Electrical Wiring, Panel Assembly, Mechanical Assembly, Woodworking

PUBLICATION

Coherent electron transparent tunneling through a single barrier within a Fabry-Perot cavity

Superlattices and Microstructures | Volume 95, July 2016, Pages 140-148

Jason Stolle, Chaz Baum, Ryan Amann, Ryan Haman, Tanner Call, Wei Li

PROFESSIONAL EXPERIENCE

Targan | Raleigh, NC

Automation Controls Engineer II | March 2023 - Present

- Developed and commissioned controls system for automation equipment implementing a vision and machine learning (ML) based approach for Feather Sexing of day-of-hatch chickens
- Presented WingScan demonstrations for multiple customers from around the world; subject matter expert for system process, software, electrical, and machine safety
- Managed team responsible for software deployments to customer facilities
- Subject matter expert at Targan for machine safety design and implementation requirements adhering to both USA (ANSI), Canadian (CSA), South American (NR-12), and European (CE) standards
- Collaborated with Software Engineering team and Vision Engineering team to create custom Windows services to process image data, images processed in real time on automation hardware and sent to cloud services using MQTT, HTTP transactions with API endpoints

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

Projects

WingScan | Multiple Production Facilities | April 2023 - Present

- Presented WingScan demonstrations for multiple customers from around the world; subject matter expert for system process, software, electrical, and machine safety
- Managed team responsible for software deployments to customer facilities
- Developed PLC and HMI software for WingScan hatchery automation equipment implementing a vision and machine learning (ML) and artificial intelligence (AI) based approach for feather sexing of day-of-hatch chickens
- Commissioned machines in house (FAT) and at customer hatchery's (SAT)
- Assisted the BIO Team in verification and validation testing by performing manual feather sexing of day-of-hatch chickens

Vision Bridge Services | Eagle Springs, NC | April 2023 - September 2023

- Collaborated with Software Engineering team to create custom Windows services to process image data, images processed in real time on automation hardware and sent to cloud services using MQTT, HTTP transactions with API endpoints

Disruptor Testing | Raleigh, NC | April 2023 - July 2023

- Designed, wired, and programmed a system to test patented disruptor technology;

Valve Testing | Raleigh, NC | April 2023 - July 2023

- Added additional software features to a system to test valve reliability

Sub-Zero | Fitchburg, WI

Manufacturing Controls Engineer II | December 2022 - March 2023

- Technical lead for machine safety design and implementation conforming to ANSI B11 standards and industry best practices
- Developed safety documentation standards used by engineers performing verification and validation of safety devices and systems
- Executed safety verification and validation of devices and systems
- Performed safety risk assessments collaborating with team members of multiple engineering disciplines as well as production staff
- Mentor for new controls engineers and technicians

Manufacturing Controls Engineer | July 2021 - December 2022

- Technical lead in manufacturing production support involving the diagnosis and resolution of problems related to; software programming, IT / communications networks, electrical systems, mechanical systems, and machine operator processes

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

- Manufacturing controls subject matter expert for new product development and the associated production line manufacturing equipment
- Supervised and collaborated with automation contractors to build and integrate new production line equipment

Projects

Production Line - 5th Gen. Built-In Series (BI5) | Fitchburg, WI | July 2021 - December 2022

- Major redesign of existing BI4 refrigerator production line to produce new BI5 refrigerator
- Cutover to new BI5 production during 4-week period in November 2022-December 2022
- Lead Controls Engineer responsible for
 - o Automation contractor management and design review
 - o Supervision of contractor automation work
 - o Implementing changes alongside contractor to various systems on the production line
- Production support during first shift production of BI5

Production Line - 4th Gen. Built-In Series (BI4) | Fitchburg, WI | July 2021 - December 2022

- Lead controls engineer responsible for updates to the BI4 production line
- Production support as-needed

Fabrication Equipment | Fitchburg, WI | July 2021 - December 2022

- Production support for over 100 separate fabrication machines including: die presses, sheet metal stamping, completed product sorting

Wolf Gas Range Production Line | Fitchburg, WI | July 2021 - December 2022

- Updated PLC software to improve efficiency and reliability of multi-position turn-tables used to distribute products to end of line testing bays
- Production support as-needed

Cove Dishwasher Production Line | Fitchburg, WI | July 2021 - December 2022

- Lead controls engineer responsible for updates to safety
- Production support as-needed

ACS | Middleton, WI

Instrumentation and Controls Engineer | November 2018 - July 2021

- Collaborated with clients and colleagues to design, review, and develop controls system specifications including system architecture diagrams, process and instrumentation diagrams, control sequence specifications, electrical design specifications
- Designed, developed, and commissioned a broad range of control systems at various client facilities across the United States including stand-alone machine application's, engine test facilities, individual test cell installations, full production lines

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

- Developed electrical wiring schematics, electrical panel layout drawings, process and instrumentation diagrams (P&IDs), instrumentation indexes, and BOMs using AutoCAD Electrical
- Managed procurement of controls materials including specification and purchasing
- Developed wire pull schedules, scope of work documents for contractor bidding and construction
- Supervised contractors during construction and installation of automation equipment and facilities
- Performed in-house (FAT) and onsite commissioning (SAT) of automation systems including validation of system processes, calibration of instrumentation
- Developed and maintained automation software for PLC's, HMI's, and PC's utilizing a variety of vendors including Allen-Bradley, Siemens, etc.

Projects

Applications Lab | Kohler - Kohler, WI | November 2019 - June 2021

- Developed, implemented PLC and HMI software multiple engine test cells within the Application Lab
- Lab consists of 2 cold engine test cells capable of reaching -40F, 2 hot engine test cells capable of reaching 140F, and 1 engine test cell at ambient temperature

Axle Test Stand | Meritor (formerly AxleTech) - Oshkosh, WI | March 2020 - September 2020

- Repeat customer, specifications for this Axle Test Stand based on previously purchased Axle Test Stand with additional scope
- Designed and built custom umbilical cord system combining multiple off-the-shelf individual motor control pendants into single control pendant
- System utilized pneumatic controls for automatic gear shifting on the Axle

DAQ System for Drone Testing | DMC - Seattle, WA | October 2019 - January 2020

- Provided design support to DMC to develop the I/O requirements for the custom data acquisition system.
- Designed portable connection system for testing systems at multiple locations while providing quick connect / disconnect means.

FID Fuel SIS | Cummins Technical Center - Columbus, IN | July 2019 - October 2019

- Safety-Integrated-System (SIS) for FID Fuel distribution to the entire plant
- System monitored fuel pressures and controlled fuel valves to distribute FID fuel to test cells throughout the plant
- System integrated with the Building Automation System (BAS) to safely shutdown in case of fire or other emergencies

Test Cell Upgrade (QTY 3) | Cummins Technical Center - Columbus, IN | July 2019 - October 2019

- Repeat customer, scope of work for these 3 test cells same as previous test cells
- For more information, see description for previous Test Cell Upgrade from November 2018

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

Axle Test Stand | AxleTech - Oshkosh, WI | June 2019 - October 2020

- Created an automated control system to replace obsolete system.
- Automated system followed customer provided axle test sequence.
- Designed and implemented recipe system for automated control based on barcode input.
- Designed and built a custom umbilical cord system so that the motor could be moved and mounted without power / controls wiring connected.
- Created from scratch the PLC program and HMI for the control system that included:
 - o Allen-Bradley: CompactLogix PLC, PanelView Plus 7 HMI, PowerFlex 525 VFD
 - o Cognex: DataMan Barcode Scanner
 - o Zebra: ZT410 printer
- New system improved operator safety by automating the testing sequence and moving the operator away from the axle assembly being tested.

Production Line Upgrade | BorgWarner - Bellwood, IL | March 2019 - January 2020

- Integration of existing Multi-Segmenter (MS) with the bonding portion of existing AutoPH Press and new Vision inspection system to allow for single-piece-flow part production.
- Controls software utilized SIL2/3, PLd Rockwell Automation instructions and associated hardware
- Designed and built drying tunnel conveyor system to convey parts from the MS to the AutoPH
- Designed, created, and implemented new PLC program and HMI for upgraded system
- Trained BorgWarner staff on operation and maintenance of new system.
- Control system included:
 - o Allen-Bradley: CompactLogix PLC, PanelView Plus 7 HMI, PowerFlex 525 VFD, PointIO
 - o Denso: RC8 Robot Controller, HS-055 4-Axis Robot
 - o Hydraulics: Press system with 6 individual presses controlled via one hydraulic pump

SV MAC2 Die Tester | Meggit - Irvine, CA | January 2019 - February 2019

- Designed and built a test stand system for the MAC2 devices
- Created electrical schematics using AutoCAD Electrical

Hydraulic Pump Test Stand | Meggit - Irvine, CA | January 2019 - March 2019

- Designed and built a test stand system to test hydraulic pumps
- System included a tank heating system with a VFD controlled pump and integrated safety
- Trained Meggit staff on operation and maintenance of equipment

Test Cell Upgrade (QTY 2) | Cummins Technical Center - Columbus, IN | November 2018 - January 2019

- Performed Factory Acceptance Testing (FAT) of multiple electrical panels
- Assisted management of contractors executing the installation of electrical panels, field devices, cabling, general construction

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

- Installed IT equipment for Test Cell monitoring and control
- Performed Commissioning/Site Acceptance Testing (SAT) of multiple electrical panels, field devices including: flow meters, pressure sensors, temperature sensors, fluid level sensors, flame detectors, gas detectors, ESTOPs, pneumatic valves

Exact Sciences | Madison, WI

Systems Test Engineer | April 2018 - October 2018

- Designed and executed testing strategies for functional verification of automated systems including software, hardware, and safety related components
- Created and maintained automated software tests for windows applications written in C#
- Utilized Enterprise Document Management System (EDM) for management of controlled documents
- Maintained and improved knowledge of SOPs using a Learning Management System (LMS)

Projects

Electronic Notebook V&V Testing | Madison, WI | April 2018 - October 2018

- Developed and executed a manual testing plan for a web based electronic notebook system

Filter Supply Chain Testing | Madison, WI | April 2018 - October 2018

- Performed laboratory testing of new filters for the Cologuard testing process from new suppliers

Cardinal Glass (AG) | Spring Green, WI

Electrical Engineer, | May 2016 - April 2018

- Developed and maintained automation control software for window manufacturing using Allen Bradley controllers (ControlLogix and GuardLogix), HMIs, and control platforms
- Developed and maintained Windows (C#, .NET) based applications for production scheduling, operator interfaces, and production communication to PLC's
- Physical installation and setup of new production lines and individual machines at customer manufacturing facilities across the United States
- PLC programming using RS Logix 5000, Studio 5000, RS Logix 500, Factory Talk View ME
- ControlLogix, GuardLogix, CompactLogix controllers
- Ladder logic, structured text, and function block programming style
- Ethernet, DeviceNet, and ControlNet communication with IO devices
- Motion control using VFD's, Servo Motors
- C# and Visual Basic .NET applications
 - o Developed and maintained an application for muntin bar producing machine
 - o Written in C# using WPF and MVVM design pattern
 - o Application uses both Synchronous and Asynchronous programming
 - o Developed both front-end and back-end software from scratch
- C/C++ experience with support and additional development of MS-DOS applications
- Some experience with Cognex Vision applications (In-Sight 5000 series)

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

- Some experience with Fanuc Robotics including programming and PLC integration
- Assisted with mechanical assembly, alignment, and placement of machines and their components
- Assisted with electrical panel wiring including 24VDC I/O and power up to 480VAC

Projects

ODF | Minneapolis, MN | October 2017 - April 2018

- Developed, installed, commissioned, and supported a system that assembled two panes of glass separated by liquid crystals
- The finished product was a pane of glass that was dimmable via an electric switch
- System used Allen-Bradley Safety PLC with a Turbo-Molecular pumping system, vacuum chamber, and servo motor driven assembly system.

Muntin Max | Multiple Production Facilities | August 2016 - April 2018

- Developed PLC program, C# desktop application for producing muntin bars (decorative bars in between window panes)
- C# desktop application served as production interface for operators to select the bars that would cut by the PLC controlled system.
- Once selected via the desktop UI, the application would optimize the cutting sequence from a stock bar, then communicate that sequence to the PLC
- PLC program utilized that information to gather a bar from stock magazine system, pick and place into the feed system, then cut to length / end style
- C# application used WPF and MVVM design pattern, asynchronous and synchronous programming, SQL queries
- PLC program (Logix 5000) included servo motion control (Kinetix 6000), VFD control (PF525), conveyor control, pneumatic control, position registration, barcode scanners

Production Line | Buckeye, AZ | August 2017 - October 2017

- Developed, installed, commissioned, and supported window assembly production line
- Production line produced the largest residential windows in the US at 156" w x 96" h
- Production line consisted of a series of Cells containing multiple sub-machines including: conveyors, custom process machines, 3rd party washer system
- System used Allen-Bradley PLC's with produce / consume data between Cells

Production Line | Ocala, FL | June 2017 - August 2017

- Developed, installed, commissioned, and supported window assembly production line
- Production line consisted of a series of Cells containing multiple sub-machines including: conveyors, custom process machines, 3rd party washer system
- System used Allen-Bradley PLCs with produce / consume data between Cells

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

Roboseam | Multiple Production Facilities | September 2016 - June 2017

- Developed and supported software for robotic edge seaming system
- System consisted of:
 - o Loading and conveying system
 - o Vision system to detect the shape of the glass
 - o PC to process the vision images and communicate shapes to the PLC
 - o PLC to control motion of conveyors and communicate sequences to Fanuc Robots
 - o (2) Fanuc Robots with a belt attachment to seam the edges of the glass
 - o Laser engraving system after the seaming process
 - o Unloading / loading into a tempering furnace
- Assisted in installation, commissioning, and debugging of various Roboseam systems at multiple production facilities across the US

Coating Detection System | Multiple Production Facilities | May 2016 - July 2016

- Designed, build, and tested a coating detection system for the front end of the assembly line
- System detected which side of the glass the coating was on and alerted the operator if the glass was loaded incorrectly

Razorback and Flipper Cell | Buckeye, AZ | May 2016 - September 2016

- Developed PLC program using Studio 5000 for a combined Razorback and Flipper cell system
- PLC program included servo motion control (Kinetix 6000), VFD control (PF525), conveyor control, pneumatic control, position registration, barcode scanners, SQL queries
- Machine was put into production in 2017 at the Buckeye, AZ facility

UW-Platteville | Platteville, WI

Physics 2 Lab Assistant, | January 2016 - May 2016

- Assisted the class during the laboratory experiments
- Held three office hours a week for the students to aide with homework, test preparation
- Aided with grading of labs, exams, homework

Lands End | Dodgeville, WI

Machine Operator, | May 2015 - May 2016

- Operated embroidery machine based on customer orders
- Problem solved when issues with machine or order occurred
- Communicated with management on weekly basis to ensure accuracy and speed

Soto Night Club | Madison, WI

Bouncer, Barback | November 2014 - May 2016

- Assisted bartenders in stocking inventory prior to and during the shift
- Ensured a safe environment for guests and employees

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

McDonalds | Des Moines, IA

Crew Trainer | December 2012 - January 2015

- Coached new crew members through station training

Crew Team Member | July 2010 - December 2012

- Prepared food for customers with team size ranging from 2-10 members
- Assisted maintenance staff handling bi-weekly supply shipments
- Received customer orders and operated cash register
- Learned to effectively communicate with team members, customers

PERSONAL DEVELOPMENT

“Home Lab”

Over the years I have setup my own personal software/systems development lab. The goal of this endeavor is to learn new technologies in a non-production critical environment. Below is a summary of the technologies, systems, and services I use.

jasonstolle.com

- Google Domains DNS with custom A records for sub-domains, Dynamic DNS
- DNS records pointed to Reverse Proxy server hosted on a Synology NAS (DS218+, upgraded 16 GB RAM, 3.5TB storage volume RAID 1)
- Reverse Proxy server is setup to handle HTTPS certificates, proxy to Application Server hosted on a Synology NAS (DS1817+, upgraded 16 GB RAM, 250GB SSD cache, 34TB storage volume Synology Hybrid RAID)

sim.jasonstolle.com

- Simulation of the custom build API services that I use for my devices in my home
- C# ASP.NET Core Web Application (Razor Pages), SDK V5.0, running in a Linux Docker container
- Application references NuGet packages hosted on personal NuGet package server
- Phillips Hue
 - o Custom C# library implementing the Phillips [Hue API](#)
 - Hue API use JSON for data storage and HTTP requests
 - o Custom web UI for interacting with entities of a Phillips Hue Bridge: Lights, Groups, Sensors, Schedules, Scenes, Resource Links, Capabilities
 - o Using Bootstrap, Font-Awesome, jQuery, jQuery validation, custom CSS, custom JS
 - o Web UI Features
 - Basic CRUD implementation
 - Light and Group On/Off control, Brightness control using AJAX requests and custom CSS and JS to update the UI asynchronously

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

- Roku
 - o Custom C# library implementing the [Roku External Control Protocol \(ECP\)](#)
 - o ECP handles HTTP requests using an XML payload
 - o Custom web UI for controlling a Roku TV
 - o Web UI Features:
 - Get the currently displayed App, TV Channel, Screen Saver
 - Get all installed Apps, TV Channels
 - Launch a new App or TV Channel from the list of installed Apps or TV Channels
 - Virtual remote control modeled after physical remote control

nuget.jasonstolle.com

- NuGet package server

gitea.jasonstolle.com

- DevOps Platform

EDUCATION

University of Wisconsin Platteville | Platteville, WI | Aug 2012 - May 2016

B.S. in Engineering Physics, Emphasis in Mechanical Design, Minor in Mathematics

Member of the men's soccer team

Des Moines Area Community College | Ankeny, IA | Aug 2010 - May 2012

33 credits taken during high school career including both general and technical courses

University of Northern Iowa | Cedar Falls, IA | Aug 2011 - May 2012

Physics 1 and 2 taken during senior year of High School

UNDERGRADUATE RESEARCH

Automated FESA Experiments for alignment of Carbon Nanotubes | Platteville, WI | Aug 2015 - May 2016

Faculty Advisor: Dr. Harold T. Evensen

- Development of aligned carbon nanotubes using a fluid-evaporative-self-alignment process
- Tested various types of substrates in order to investigate CNT alignment properties
- Experiments were performed in a clean room environment (primarily 10,000 level / ISO 7)

JASON STOLLE

113 Hamlet Pl | Morrisville, NC | 27560

stolle.jason5@gmail.com | 515-473-0455 | jasonstolle.com

A New Resonant Tunneling Phenomenon | Platteville, WI | Nov 2015 - May 2016

Faculty Advisor: Dr. Wei Li

- Developed a new method of quantum resonant tunneling based off of optical resonant tunneling
- Possible applications in new diode technology
- Published results in Superlattices and Microstructures Volume 95, 2016, Pages 140-148

ACTIVITIES

UW-Platteville Men's Soccer | Platteville, WI | August 2012 - January 2016

- WIAC Scholastic Honor Roll 2012

National Society of Leadership and Success | Platteville, WI | January 2013 - May 2014

- Bi-weekly meetings to improve leadership skills, success skills by learning from various leaders around the world
- Weekly group organizational/accountability meetings that worked on goalsetting for both long and short term

VOLUNTEERING

Food for the Soul | Dubuque, IA | August 2013 - November 2013

- Volunteered at local church in Dubuque and served food to homeless citizens