JOHN A. PILLER, JR.

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SUMMARY

Director Level Senior Engineering Leader with hands-on expertise and academic experience in industrial electrical, building automation/energy management, and machine controls expertise. Proven Expert for Industrial Controls, Data collection, Control Theory and Implementation, and Energy Use. Smart Manufacturing Full Stack Solutions provider with experience in mentoring ML/AI teams in process controls and manufacturing systems.

Machine Controls, PID	Renewable/Green Energy	Microsoft Office Suite
Codesys, Rockwell, Siemens	Electrical Construction	Linux
IEC 61131-3 Software	Three Phase Power	Google Workplace
Smart Manufacturing	Motor Controls	AutoCAD Electrical
C, C++, Python, React	OPC-UA, MQTT	NFPA 70, NFPA 79
MATLAB, LabView		

EXPERIENCE

Founder/CEO, **Genau/JPiller Design and Consulting,** Granger IN 2010 -- Present
Engineering Consulting focused on Smart Manufacturing and industrial machine controls for medium and small industry.

Major Clients/Contracts with Genau/JPDC
NFPA 79, Technical Committee Member
CHT, Controls Engineer, Cassopolis, MI
Oden Technologies, *Principal Field Operations Engineer,* New York, NY
Polywood, Controls Engineer, Syracuse, IN
Purdue Manufacturing Extension Partnership, Multiple Cities, IN

Controls Engineer II, HB Fuller, South Bend, IN 2023 -- 2024
Provide engineering support manufacturing facility Maintenance and Process Projects.

Director of Field Support, Alcatraz.AI, Indianapolis, IN /Cupertino, Ca 2022 -- 2023
Alcatraz AI has redefined physical security by providing an innovative facial authentication solution that leverages artificial intelligence, analytics, and the unique power of the human face to make safe spaces.

- Manage people assigned in the Technical Support team to support more significant numbers of deployments, partners, and an expanding install-base as Alcatraz continues to grow.
- Establish processes and procedures for ensuring a great customer experience.
- Interact with all internal stakeholders to provide on-time and quality support.
- Provide remote support to installers, end-users, and AAI field personnel for installing and using all AAI products using video conferencing, phone, email, and remote desktop software.
- Escalate issues to appropriate AAI internal teams and work with them to resolve the issues when necessary while providing timely updates to customers.

Senior Controls Engineer, CHT USA 2022
The Senior Controls Engineer is responsible for the development, construction, installation, maintenance, and improvement of CHT USA's process automation. This position is also responsible for the design and maintenance of electrical infrastructure in CHT USA's manufacturing sites (Cassopolis, MI and Richmond, VA). This role is based in Cassopolis, MI, with travel to Richmond, VA as necessary to support automation and electrical infrastructure projects there.

Senior IoT Controls Engineer, Liveline Technologies 2021 -- 2022

Liveline Technologies is dedicated to improving manufacturing performance by harnessing the power of Artificial Intelligence to automate complex processes and predict future problems. Liveline Technologies is currently being incubated at the Cooper Standard's Global Technology Center in Metro Detroit. The Senior IoT Controls Engineer mentored and managed the Controls Engineering. Focus on development of equipment and software required in the manufacturing facility to move data to the Edge for ML/AI processing and control.

- Design, Build, Install, and Implemented Automation Controls for multiple controls lines. Converting from Analog based systems to PLC based Controls.
- Network manufacturing lines for access to data for Smart Manufacturing Dashboard systems. Resulted in improved manufacturing performance measured in OEE, Scrap, and Labor reduction.
- Provide support for global clients in North America and Europe with practical industrial machine level knowledge to support the data pipeline stack. Sensor level to Cloud Level Data flow.
- Mentor the Solutions Team and ML Teams in developing the skills required to create heuristic measures to improve the AI and rules-based controls. Full Stack integration in standard software practices and data management (C, Python, Kafka, Postgres, Node, React)
- Project Management of teams of 2 to 30 that support contractors and consultants on Multi-Level Waterfall and Agile projects. The projects are both supporting Client Installation along with Product and Engineering team contractors.

Director of Engineering, Envision Automation 2020 -- 2021

Envision Automation is an automation and controls service contractor in the Michiana Region. Project tasks were to build an Engineering team to move Envision from a service contractor to a Machine Builder and Automation Design Contractor.

- Evolved the professional appearance of the company by converting to an online cloud server system and standard email package. Standardized quotes and Reduced the time to build of controls equipment by creating standard panels for basic machine control needs.
- Improved safety and design quality by focusing on the requirements of NFPA 79; Electrical Standard for Industrial Machinery

Principal Field Deploy Engineer, Oden Technologies 2019 -- 2020

Oden Technologies is the intelligent industrial automation company, empowering manufacturers to embrace Industry 4.0 and achieve perfect production. Oden provides complete visibility into all the production processes in real-time. It wirelessly collects data from any machine, integrates it with third-party systems and delivers instantaneous insights leading to effective quality control, timely maintenance and lower machine downtimes, optimized operations, and higher customer satisfaction.

- Reduced Engineer onsite time by standardizing technical offerings, specifications, and requirements.
- Reduced installation costs by focusing on the growth and managing 3rd party deployment teams network creating a clear commercial breakdown of responsibilities and project expectations of new deployments.

Assistant Professor of Practice (Promotion Path Below), **Purdue University** 2011 – 2019

College of Technology, School of Engineering Technology, Statewide site

- Teaching focuses on Electrical Power, Controls, and Automation.
- Taught over 33 different named ECET and MET courses.
- Designed, and managed the build of an Automation laboratory teaching platform that was open for use among the 11 Purdue Statewide sites. Opened the MfET program up to the Statewide students as an offering.
- Authored a textbook, *Introduction to Industrial Controls: A Practical Engineering Technician Design Method.*
- Designed curriculum for the Purdue Manufacturing Extension Partnership for industry personnel in Industrial Controls and Electrical Troubleshooting.
- Educated 150+ industrial maintenance professionals in Electrical Power and PLC Controls in partnership with the Purdue MEP.

Field Technician, **Emnet**, South Bend IN 2010 -- 2011

Building the Smart Sewer systems of the future.

- First Experience with Startup. Worked with founders to establish Field Services. Trained replacement Engineer in position to allow me to move on to Academic Position.
- Primary field deployment and service engineer on embedded control systems used to monitor and control city wastewater systems.

Project Manager, **Communication Company of South Bend**, South Bend IN 2009 -- 2010
Low voltage electrical contractor, providing fire alarm, classroom technology, and healthcare technology systems.
- Manage new construction and retrofit construction of Fire Alarm, Access Control, CCTV systems, Intercom/Paging System, and Nurse Call Systems.
- Assist salesmen with the estimation of labor, material, and other job costs.

Engineer, **Covenant Communication & Consulting**, Cicero IN 2006 -- 2009
Technical support for large scale building automation startups and service.
- Install and startup PLC hardware systems in jail and prison security control systems.
- Major responsibilities surround management of the installation of a complete system layout including door control, intercom systems, CCTV systems and various other integration requirements of electronic controls necessary for the function of the building.

Project Engineer III, **Stanley – Integrator** (Integrator.com), Noblesville IN 2005 - 2006
Building automation controls for Correctional Facilities.
- Designed PLC hardware systems in jail and prison security control systems.
- design and drawing of the complete system layout including door control, intercom systems, CCTV systems and the integration of various other electronic controls necessary for the function of the building,
- management of the build of the product, creation of materials needed for installation of the system and communication with the installing contractor, and the final certification and startup of the complete system. Project of note in addition to those listed below is Winnebago County Jail & Courthouse, Rockford, IL.

Graduate School from 2003-2005

Staff Engineer, **Integrator.com**, Noblesville IN 2002 - 2003
Building automation controls for Correctional Facilities.
- Designed PLC hardware systems in jail and prison security control systems including design and drawing of the complete system layout including door control, intercom systems, CCTV systems and the integration of various other electronic controls necessary for the function of the building.
- Full project management of the build of the product, creation of materials needed for installation of the system and communication with the installing contractor, and the final certification and startup of the complete system.
- Projects of note are Butte County Juvenile in Orville, CA and USP II located in Terre Haute, IN.

Assistant Project Manager, **Fisk Electric,** Houston TX 2001 - 2002
Electrical Contractor on a national scale.
- Estimating experience with large electrical construction projects in Houston, Texas. Largest project was a $13.8 Million Electrical Estimation for a 20-story hotel in downtown Houston.

Academic Experience, Promotion Path (Post-Secondary)

Adjunct Professor, Hochschule Darmstadt, University of Applied Sciences 2018 - Present
Assistant Professor of Practice, Purdue University, School of Engineering Technology 2014 – 2019
Adjunct Professor, Ivy Tech Community College 2020
Continuing Lecturer, Purdue University – ECET Department 2011 -- 2014
Limited Term Lecturer, Purdue University – ECET Department 2011
Assistant Professor, ITT – Technical Institute 2009
Graduate Teaching Assistant, Purdue University 2003 -- 2005

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Education

MS, Purdue University
Major: Electrical Engineering Technology
Dissertation Title: Masters Directive Project: “Cost Analysis Study on In-House Building Lighting Contactor Panels versus Commercially Available Models”

BS, Purdue University
Major: Electrical Engineering Technology

A.S., Purdue University
Major: Electrical Engineering Technology

Publications

Book Chapters

Kulatunga, N. A., Piller, J. A., & Winter, E. R. (2009). Energy Dispersion Analysis Tool. *Encyclopedia of Energy Engineering and Technology*. Taylor & Francis. doi: 10.1081/E-EEE-120045354, http://www.tandfonline.com/doi/abs/10.1081/E-EEE-120045354#.VMu8sWh4pNN

Books

Piller, J. A. (2018). *Introduction to Industrial Controls: A Practical Engineering Technician Design Method.* (2nd ed., vol. 1). West Lafayette, IN: Purdue Scholarly Publishing Services.

Professional Memberships

National Fire Protection Association. (January 2016 - Present).
Technical Committee Member of NFPA 79