

Curriculum Vitae

David M. Schumaker

Forensic & Controls Specialist

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Forensic & Controls Specialist with 35 plus years in the electrical and controls engineering field with the last 30 years in industrial automation. Experienced in providing engineering and design support in the areas of commercial and industrial electrical control systems, power distribution systems and general electrical systems. Experienced with 8+ years in the field of Forensic Engineering, working on accident reconstruction involving vehicles, bicycles and pedestrians as well as maintenance of traffic, construction zone, evaluation of mechanical designs and failures, and electrical fire analysis.

PROFESSIONAL EXPERIENCE

2021 to Present **Contractor for Quality Forensic Engineering, LLC, Tucson, Arizona**
Forensic & Controls Specialist

2018 to Present **B3 Controls, LLC, Tucson, Arizona**
System Integrator
Manager and Automation Engineer

2013 to 2018 **Homeville Consulting, Sebastopol, California**
Control Systems Consultant

2007 to 2013 **BEC Consulting, LLC, Tallahassee, Florida**
(Formerly Benedict Engineering Company)
Controls Specialist

2006 to 2007 **Benedict Engineering Company, Tallahassee, Florida**
Controls Engineer

2005 to 2006 **Millennium Control Systems, Inc, Eastlake, Ohio**
Systems Engineer

1988 to 2005 **United States Steel Corporation (USS), Lorain, Ohio**
Electrical Maintenance Manager and Project Engineer

RELEVANT COURSEWORK/CONTINUING EDUCATION

- July 2011 “ARAS 360 3D Computer Diagramming for Crash Reconstruction”
ARAS 360 Technologies Inc., Tallahassee, FL
- June 2011 “Safe Operation of Powered Industrial Truck”
BEC Consulting, Tallahassee, FL

Forensic Engineering Experience

Mr. Schumaker has been involved with a large number of forensic engineering projects, including the following representative subjects:

- Vehicular accident reconstruction
- Tractor-trailer accident reconstruction
- Pedestrian accidents
- Construction zone accidents
- Maintenance of Traffic (MOT) evaluation
- Roadway design
- Evaluation of mechanical designs and failures
- Automated control failure evaluation
- Electrical fire analysis
- Electrical equipment malfunction evaluation
- Lightning strike damage analysis
- Electrocutions

LICENSES, REGISTRATIONS, and CERTIFICATIONS

Certified Counter Balanced Forklift Operator

PROFESSIONAL ASSOCIATIONS

Institute of Electrical and Electronics Engineers (IEEE)
Member Number 97333924

WORK EXPERIENCE

Automation Engineer – Responsible for the design, development, and commissioning of control automation for clients in various industrial industries.

Control System Consultant – Responsible for designing, developing, and commissioning of control systems for OEMs of process control and material handling equipment.

Forensics Controls Specialist Contractor – Responsible for assisting BEC Consulting, LLC with forensic cases that are electrical or controls related.

Systems Engineer – Responsible for the design, development, and commissioning of control automation for the steel, glass, and material handling industries.

Project Engineer – Responsible for the design, development and commissioning of new installations and upgrades to existing installations in a seamless pipe mill in the steel industry. This includes all material handling equipment, process control equipment for the various mills and large industrial reheat furnaces and data collection of key quality indicators for the production of seamless pipe.

Electrical Maintenance Manager – Responsible for scheduling and maintaining all electrical and control equipment including substations, process control equipment and material handling equipment.

REPRESENTATIVE PROJECTS

Systems Integration

Since 2013, Mr. Schumaker has been the automation engineer on several projects for the US Navy, Spirit Aerosystems, and the Royal New Zealand Air Force involving the development of large scale PMB (plastic media blast) booths used by rework facilities of various military and commercial aircraft. This system fully automated and is capable of reclaiming, cleaning, and classifying the plastic media for re-use. Some of the other projects he has worked on include vacuum deposition coating machines and University of Arizona/AURA telescope projects including LSST, Rubin Observatory and Kitt Peak Observatory.

Material Handling

Since 2005, Mr. Schumaker has been the controls engineer for a number of military contracts involving the development of shipboard material handling systems. One of these programs, funded by the Military Sealift Command (MSC), is a system capable of automatically storing and retrieving 20-foot ISO containers in a shipboard environment. This system provides the military with selective discharge capabilities and allows them to operate in a sea-base environment. This application has been further developed to be used in container ports, dry stack boat storage and automated parking garages.

EDUCATION

1987 – 1996

Courses towards Computer Science and Electrical Engineering Degrees

Lorain County Community College, Lorain, Ohio
Cleveland State University, Cleveland, Ohio