

# Zachary Bahr

## ELECTRICAL CONTROLS & INSTRUMENTATION ENGINEER/PROJECT MANAGER - Esco Technologies

Bensalem, PA - Email me on Indeed: [indeed.com/r/Zachary-Bahr/c20d904fb0a68a91](https://indeed.com/r/Zachary-Bahr/c20d904fb0a68a91)

To obtain an electrical engineering position with interest of power analysis, automation, and circuit design.

### WORK EXPERIENCE

#### ELECTRICAL CONTROLS & INSTRUMENTATION ENGINEER/PROJECT MANAGER

Esco Technologies - Feasterville, PA - December 2013 to Present

- Product & project management from single stand-alone systems to fully integrated process systems
- R&D of new systems, system improvements, process improvements.
- Extensive programming with Siemens TIA Portal, Rockwell Studio 5000 and Factory Talk Software
- Experienced in Hazardous Area Design, ATEX, NEC 500 & 505
- Design electrical control panels and equipment according the UL508A, NFPA and NEC Specifications
- Work internally with mechanical engineers daily and assist when needed.
- Applying time management to work on active projects while competing new products development in the background
- Provide projects schedules and updates to clients daily
- Applications and onsite support
- System development and management, including an array of Containment and Aseptic Isolators, Downflow Booths, Flow Hoods, Pass Through Chambers, Laminar flow plenums
- Ergonomic Study conduction, evaluations and solutions, risk assessments
- Manufacturing / Fabrication Procedures and SOP's
- Develop Documentation & Validation, including, Design Documents / Drawings, FAT's, IQ/OQ, O&M files, Technical Construction files, Training Manuals.
- VHP / Gas Cycle Development

#### CONTROLS ENGINEER

General Motors Corporation - Baltimore, MD - May 2012 to December 2013

- Support production in vehicle manufacturing environment
- Involved with programming and installation of three new and one existing production lines
- Develop and Design of electrical systems including: electronics, controls and instrumentation, programmable logic controllers (PLC), human machine interfaces (HMI), personal computer based systems (PC), robotics, mechanical drives and pneumatics in accordance of General Motors Specifications
- Troubleshoot programming failures and make adjustments/recommendations on equipment when necessary
- Worked internally with project managers to design custom control systems
- Extensive programming with RSLogix v19/20 and Factory Talk View v6/6.1
- Completion of Rockwell training courses
  - o Advanced RSLogix v19 programming
  - o Profibus set up and programming
- Familiar with programming Siemens Step 7 V5.5 based equipment
- Extensive programming with Fanuc robots
- Completion of several Fanuc training courses
  - o Electrical Maintenance with R-30iA Controller

- o Handling Tool Operation and Programming
- o Advanced Teach Pendant Programming
- o V-irVision Operation and Programming-2D
- Strong understanding of Promess applications and programming with MotionPro 4.0.8/Emac
- Completion of Promess MotionPro training course
- Experience with configuring Eflex Systems Products: eFlex Assembly(Process Assembly Management Toolkit) and eFlex Vision (Vision Inspection System Image Storage)
- Experienced with programming Cognex In-sight 4.7.3 and Fanuc vision systems
- Programmed several Cognex Dataman 8500 hand scanners
- Set up and configure Balogh RFID, Hirschman, Schunk Products
- Understanding of manufacturing and tooling processes
- Work closely with AutoCAD development of electrical schematics and detailing
- Worked overseas with design and debug of new production line
- Obtained strong knowledge of electric motors
- Familiar with National Electric Code 2008 and National Fire Protection Association

### **ELECTRICAL ENGINEERING/ENGINEERING TECHNOLOGY TUTOR**

Pennsylvania State University Capital College - Middletown, PA - August 2011 to May 2012

- Tutored Students in circuit analysis, digital systems, mathematics, statics, programming and dynamics
- Worked and cooperated with different students everyday on classroom based problems

### **ELECTRICAL ENGINEER**

ArcelorMittal USA - Conshohocken, PA - May 2011 to August 2011

- Worked with AutoCAD development of electrical schematics and detailing
- Experienced with electronics, controls and instrumentation, programmable logic controllers (PLC), mechanical drives and AC electric machines
- Extensive design with Cimplicity and Wonderware applications for human machine interfaces
- Develop electrical hardware design and functionality of control systems
- Created troubleshooting documentation for each project
- Design of a Safety System for an Overhead Crane
- o Used Keyence Lasers to Control Variable Frequency Drives
- Redesign Reheat Furnace HMIs
- o Imported all Tags from PLC and designed a Human Machine Interface for Operators
- Design of an Auto-Calibration System for Laser Gauges
- o Designed, Purchased and Assembled system
- o Used Festo Products, Allen Bradley Compact Logix Processor and Keyence Lasers

### **ELECTRICAL TECHNOLOGY TUTOR**

National Electric Code - August 2009 to May 2010

Tutored Students in Residential and Commercial Wiring, Using the National Electric Code, AC and DC fundamentals, RLC circuits, Power systems

### **ELECTRICAL HELPER/ELECTRICIAN**

Armour and Sons Electric Inc - Langhorne, PA - November 2006 to August 2008

- Performed electrical tasks when assigned, Forklift license
- Use of NEC with all electrical projects
- Experience with Blueprint Reading/Schematics

National Electric Code - Williamsport, PA - 2008 to 2008

## EDUCATION

### **BACHELORS OF SCIENCE in ELECTRICAL ENGINEERING TECHNOLOGY**

Pennsylvania State University Capital College - Middletown, PA

May 2012

### **ASSOCIATES OF APPLIED SCIENCE in ELECTRICAL TECHNOLOGY**

Pennsylvania College of Technology - Williamsport, PA

May 2010

## ADDITIONAL INFORMATION

### SKILLS:

- Familiar with National Electric Code 2008 and National Fire Protection Association
- Experienced in the Microsoft Office applications
- CPR certified
- Ability to grasp complex systems easily
- Outstanding problem solving and analytical skills
- Detailed planner achieving objectives through active listening and customer focus
- Ability to multitask in a highly flexible environment
- Hands on mechanically and electrically inclined
- High level of interpersonal skills to work effectively with others
- Strong work ethic (self-starter, responsible, follow through on assignments)
- Appropriate interpersonal styles and communication methods to work effectively with business partners to meet mutual goals required

ZACHARY BAHR

6388 Leonard Avenue, Bensalem PA, 19020

[...]

zrbahr@gmail.com