

# ROBERT BRIGNAC, PE, BSEE

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**Computer Engineering PE: Attained 2011**

**Controls Engineer PE: Plan to take exam in the near future if work permits**

**UNIVERSITY OF LOUISIANA AT LAFAYETTE– Lafayette, LA**

**B.S. Electrical Engineering Telecommunication Option; 3.0+ GPA**

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## Control System Technology Summary

**Certifications:** Fundamentals of Engineering Exam Completion, Registered Professional Engineer in Louisiana, Project Management Courses, Intrinsic Safety Courses, Hazardous Location Instrumentation Courses, ATEX Training, CE Certification Training, COMPEX, BOSIET, Safe Gulf, TWIC, SEMS, H2S, Swing Rope

**Systems:** All Windows, Embedded Systems, Control System Integration, Android, Some Unix and Linux

**Databases:** SQL, MySQL, SQL Lite, Access

**Languages:** Visual C#, Visual Basic, C, Dynamic C, Visual C, Visual C++, C++, XML, Ladder Logic, Function Block, Structured Text, Siemens SCL, Instruction List, SQL, Some experience with Java, Perl, PHP, HTML and Python

**Product Experience with:** Siemens, Allen Bradley, Turck, Pepperl + Fuchs, GE, Azonix, R Stahl, Beka, Bartec, Red Lion, Pro Face, Weidmuller, Marelli, Flexim Ultrasonic Flowmeters, Dynapar Encoders, BEI Encoders, Parker IQAN, Mincom, Baldor, Brooks and Crompton, Sprecher and Schuh, Amphenol, Draka, MOXA, GP50, Direct Logic/Automation Direct, CISCO, LinkSys, Netgear, Hoffman, Rittal, Glenair, Android powered devices, AMX, Many Audio/Visual Manufacturers including TVs; Projectors; Speakers etc, Dell, Intel, ASUS, MSI, Gigabyte, Samsung, Custom Built PCs, many others not listed

**Software:** MS Project, MS Visio, MS Office(Excel, Word, Access, Power Point, SharePoint, One Note), Purchase Order/BOM Software (Vantage), SAP, Siemens Teamcenter, many others not listed

**Industrial Software Experience with:** Microsoft Visual Studio 2003, 2005, 2008, 2010; Siemens S7 Micro; Step 7 Professional; WinCC; Turck I/O Assistant 2.5; 3.0, Pactware 3.0 ; 3.5; 3.6, CoDeSys 3.0; 3.3, Red Lion Crimson 2.0; 3.0, Parker IQAN Design Studio 2.4; 2.5; 2.6, Solidworks 06; 07; 08; 09, 10, Solidworks Enterprise PDM, PCB123, PCB Express, Autocad 2006;2007;2008;2010, eMachineshop, Direct Soft 5 (Automation Direct), eMachineshop, AMX NetLinX Studio 2.6;3.0, AMX TP4 Design, All other AMX Programs, many other software packages not listed

**Safety:** Intrinsic Safety Systems, Explosion Proof Certifications, Hazardous Area Classifications, CE, ATEX, IEC, NEC, ABS, DNV, NPD, NORSOK, OLF70, IECEx, UL, Intertek, ETL, CSA, FM, BASEEFA, TUV, KEMA, PTB; Environmental Certifications, NEMA, IP, EU Directives (EMC, Machinery, Pressure Equipment, Low Voltage, ATEX, PUWER), SIL

**Industrial Hardware Experience with:** Cat Pumps, Union Pumps, Odessa Pumps, Festo Controllers, Gilmore Products, Barksdale Products (Pressure Regulators, Switches, Digital Pressure Switches etc), Large Volume Accumulator Systems, High Pressure Systems, Pneumatic/Hydraulic Systems and Controls, Large Horsepower motors and starters, Subsea and Surface BOPS, Diverter Systems

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CV and References upon request.

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## Work Experience

### Braeden Engineering and Consulting LLC– Lafayette, LA / Katy, TX

#### **Controls/Electrical/Software Engineer, Director of Engineering**

February 2007 to Present

**Duties:** Managed a team of engineers to complete products and projects for various customer. Industrial Control Systems, Software and Hardware Design for Commercial and Home Monitoring and Control Systems, Custom Circuit Board Design and Custom Electrical Systems, Custom software application development, Control System Design

#### **Projects Include:**

- a) National Oilwell Varco – Pressure Control Group
- b) Rowan Companies: Engineering Management for Rig upgrades for the following rigs:
  - a. Gorilla IV
    - i. Top Drive and Control System
    - ii. Drawworks
    - iii. SCR and Switch Gear
    - iv. Mud tanks
    - v. Derrick
  - b. Cecil Provine
    - i. BOP Control System
    - ii. Structural Updates
    - iii. Mud Tanks
    - iv. Top Drive Control system
- c) Electronic Charting Software (EChart)
- d) Electronic Load Testing, Data Acquisition and Control System
- e) Commercial and Home Automation and Control
- f) Custom Board Design
- g) Custom Application Development

### CAD Control Systems – Broussard, LA

#### **Senior Electrical/Controls Engineer**

November 2012 to July 2014

#### **Electrical Engineer**

June 2011 to October 2012

**Duties:** Designed, serviced, and installed BOP Control Systems and related products. Performed commissioning of BOP Control Systems, Data Acquisition Systems in the field and in the manufacturing facility prior to shipment. Designed and modified certified systems for ATEX/DNV/CE Approvals for various hazardous areas as well as other areas of the world with specific regulations and standards. Assisted and performed the certification duties for large scale integrated systems for various entity approvals and standards certifications. Designed and programmed monitoring and data acquisition systems for CAD and competitor BOP Control Systems. Designed and programmed server racks for the DAC systems. Performed in house maintenance and upkeep on various programming changes for different customer systems. Additional duties included assisting in managing Electrical Engineers, Electrical Designers, Electronics Technicians, Technical Documentation, UK Project Management, and Electrical Engineering Interns. Also assisted in quality management of products, training of new hires, and general engineering management

**Travel Included:** Cairo, Alexandria, Egypt; Lagos, Port Harcourt, Nigeria; Perth, Karratha, Australia; Singapore; Ciudad Del Carmen, Mexico; Bahrain; Various United States Locations offshore and onshore

**Customers Included (but not limited to):** BP, Transocean, Diamond Offshore, Chevron, Nabors, Shell, Rowan, Atwood Oceanics, KCA Deutag, CNR International, Odjfell Drilling, RDS Oil, PDMS Energy, BIS

China, CIMC Raffles, Jurong Shipyard, PPL Shipyard, Keppel Amfels Shipyard, Mexdrill, Seadrill, Vantage, Egyptian Drilling, TAQA Global

**Projects Include (but not limited to):**

- a) CE/ATEX Certified CAD BOP Control System
- b) CAD DAQ – (CAD Data Acquisition System)
- c) Autoshear System/Subsea Accumulators for Subsea BOP Control System
- d) CAD RIK – (CAD Relay Interface Kit)
- e) Increased Safety Zone Certified Electronics Enclosure
- f) Flexim Ultrasonic Flow meter Integration
- g) FAT, Service and Design Upkeep of CAD BOP/Diverter Control Systems

**Forum Energy Technologies – Houston,TX and Broussard,LA**

**Lead Electrical Engineer – Controls and Instrumentation (R&D)**

May 2010 to June 2011

**Engineering and Project Manager/Electrical and Software Engineer**

February 2008 to May 2010

**Electrical/Software Engineer (Research and Development Department)**

April 2006 to February 2008

**Duties:** Lead many R&D product lines, as well as upgrades to legacy systems. Worked with engineers in Broussard and Houston office. Managed and assist a group of Software Engineers, Electrical Engineers, Industrial Designers and Drafters. Group was responsible for new product design, testing, development and deployment of the products to the market.

**Travel Included:** Manila, Philippines; Ciudad Del Carmen, Mexico; Manila, Philippines; Dubai, UAE, Muscat, Oman;; Many different locations in the US. Worked with many intercompany locations across the US and the World, as well as many other companies around the US and the world.

**Projects Include (but not limited to):**

- a) Torque Wrench – (Iron Roughneck)
- b) DMACS – (Dynamic Monitoring and Control System)
- c) Explosion Proof/IS CCTV System
- d) Driller’s Cabin System
- e) EWeight – (Electronic Weight Indicator)
- f) LED Level Indicator
- g) 7 Segment Display
- h) Electronic/Hydraulic Choke Control Console
- i) Twin Limit/Auto Driller - Block/Crown and Floor Saver, integrated auto driller
- j) Pump Stroke Counter
- k) Personnel Transport Bridge (PTB)
- l) EChart – Electronic Chart Recorder
- m) Ton Mile/Kilometer – Drilling Rig Work Calculator
- n) EClock – Subsurface/Downhole Electronic Inclination and Azimuth System
- o) EClock Manager – Windows Communication and Graphing Software for EClock
- p) CAODC Reporting – Canadian Drilling Reporting Software
- q) ADMS – Advanced Drillers Monitoring System