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| Bilal QANDEEL | An Engineering and Software Development Professional |

# Contact Information

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# Keywords

**AutoCAD | Automation | BAS | BMS | C++ | Confluence | Cybersecurity | DCS | Docker | Easergy | FDIR | FIDIC | Git | HMI | HVAC | iFLS | ISA99 | Jenkins | JIRA | K8S | KNX | LEED | NERC-CIP | PACiS | PLC | Python | SAS | SCADA | Smart Grid | Software Development | StruxureWare | TestRail**

# Profile

* Electrical engineering and software development professional with 10+ years of overall experience in cross-disciplinary fields:
  + Automation applications: substations, and industrial process control.
    - Expert on IEC61850 SCL for substations automation and SCADA engineering.
    - Expert on IEC61131 PLC engineering.
    - Experienced in ISA99 for OT industrial cybersecurity standard.
    - Experienced in computer hardware, embedded application development, and machine language.
  + IT and development experience.
    - Proficient in OOLs: Python, Java, C Language (mainly C++), and variations of BASIC.
    - Worked with MongoDB, MySQL, JSON, XML.
    - Worked on Git, Docker, K8S, Jenkins, Confluence, JIRA, and TestRail.
  + Worked shortly on governmental regulatory telecoms and HVAC sales engineering.

# Objective

* A position in control application development as senior control and automation engineering professional. Can develop applications for SAS, SCADA, PLC, lighting control and low current engineering and/or;
* A very good candidate for intermediate-level requirements for software development and IT-related positions, especially for Python and/or Java development efforts and/or;
* An asset in cybersecurity especially for industrial environments and standards.

# Professional Experience

* **NouvLR**
  + Testing and Commissioning Coordinator Montreal, QC, Mar 2020 – Now
    - Maintained GTT SCADA system’s requirements to the project’s standards.
    - Evaluated the validity of the suppliers’ offers and recommended the most favorable.
    - Validated the testing and commissioning procedures.
* **SSENSE**
  + Software Developer Montreal, QC, Sep 2019 – Dec 2019
    - Created an endpoint API for a frontend microservice using Flask over Python.
    - Collected data metrics and visualized it using Statsd for DataDog and NewRelic.
* **SCHNEIDER-ELECTRIC (SE)**
  + Distributed Control Systems (DCS) Specialist Brossard, QC, Nov 2016 – May 2018
    - Implemented custom and advanced automation applications using Python scripting:
      * Interfaced MySQL database to an ICMP packet manager.
      * Performed IEC61850 SCL text processing using Python.
    - Worked with SE’s proprietary PACiS, EcoSUI, PowerSCADA, Easergy, and StruxureWare.
    - Aggregated data from legacy communication protocols: DNP3, Modbus, and IEC 60870-5 into IEC 61650 using specialized IED gateways.
    - Integrated IEC61850 protection relay IEDs: SE, SEL, Vizimax, Cooper and ABB.
    - Visualized data using standard and customized local/remote levels over HMIs.
    - Gathered OT cybersecurity requirements to achieve NERC-CIP compliance.
    - Commissioned projects across Canada in Manitoba and Toronto and in the USA too.
  + Automation Engineer Riyadh, Saudi Arabia, Mar 2014 – Nov 2016
    - Interfaced IEC 61850 IEDs: SEL and ABB to SE PACiS and uplinked it to SCADA.
    - Implemented applications like: Energy Management Systems (EMS), iFLS (Interactive Fast Load Shedding Systems), and FDIR (Fault Detection, Isolation and Recovery System).
    - Interfaced Continuum and Modicon PLC controllers to HMI.
    - Tailored VBA and AutoLISP scripts to implement engineering applications.
    - Implemented OT cybersecurity activities to achieve compliance to NERC-CIP and ISA99.
  + Senior KNX/EIB Engineer Riyadh, Saudi Arabia, Jun 2012 – Mar 2014
    - Post-designed, tested, and commissioned KNX automation protocol
    - Worked on DALI light control systems.
    - Rendered AutoCAD schematics for SLD diagrams and shop drawings.
    - Worked on low current integration and HVAC control.
* **TELECOMMUNICATIONS REGULATORY COMMISSION OF JORDAN (TRC)**
  + Telecommunications Regulatory Officer Amman, Jordan, May 2011 – Aug 2012
    - Governmental telecom regulation, field inspections, competition analysis, and EU regulatory twinning program.
  + Frequency Inspection and Monitoring Engineer Amman, Jordan, Jun 2010 – May 2011
    - Radio frequency (RF) utilization analysis and field RF test drives.
    - Microwave modeling and analysis.

# Professional Development

**Certified KNX Partner (ID 42599),** KNX Organization, May 2013

**Certified LEED Green Associate,** US Green Building Council, Feb 2015 – Feb 2017

**LEED 201: Core Concepts & Strategies,** US Green Building Council, 2013

**Certified in FIDIC Redbook** International Federation of Consulting Engineers, 2015

**WHMIS 2015, Easergy T300 Overview, ISA99 Cybersecurity, PACiS SAS, Basic Electrical Safety, M238 Industrial PLC, Andover BMS Boot Camp, NETxAutomation, Certified Energy Management Associate & 2N IP Security,** Schneider-Electric, 2012 – 2017

**PMP preparation (36 PDUs)** Saudi HRD Center, PMI-(REP), 2013

**MCSE training course – Windows 2003 Server** Jordanian Engineers Association, 2007

**A+ Hardware Core, Allen-Bradley PLC** University of Jordan, 2003 – 2005

# Education

* CONCORDIA UNIVERSITY
  + Graduate Diploma in Computer Science Montreal, QC, Sep 2018 – Sep 2019
* THE UNIVERSITY OF JORDAN
  + B.Sc. in Electrical Engineering (Equivalated by Canadian WES) Jun 2003 – Aug 2007

# Memberships

Member of Project Management Institute (PMI), **2013 – 2015**

Member of Saudi Engineers Council, associate engineer, **2012 – 2016**

Member of Jordanian Engineers Association, Electrical Engineering division, **2007**

Member of Jordanian Translators and Applied Linguistics Association, **2011**

# Engineering Skills

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| SCADA | ★★★★★ | AutoCAD | ★★★★★ |
| IEC61850 | ★★★★☆ | PLC | ★★★★☆ |
| EcoSUI | ★★★★★ | μC | ★★★★☆ |

# IT Skills

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| --- | --- | --- | --- |
| Java | ★★★★☆ | Python | ★★★★☆ |
| VB/A/S | ★★★★☆ | C/C++ | ★★★★☆ |
| LISP | ★★★★☆ | HTML | ★★★☆☆ |
| SQL | ★★★☆☆ | Assembly | ★★★★★ |
| Linux | ★★★☆☆ |  |  |

# Industrial Coding Tools

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| --- | --- | --- | --- |
| Git | ★★★☆☆ | Docker | ★★★☆☆ |
| K8S | ★☆☆☆☆ | Jenkins | ★☆☆☆☆ |
| TestRail | ★★★☆☆ | HTML | ★★★☆☆ |
| DataDog | ★★★☆☆ |  |  |

# Languages

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| --- | --- | --- | --- |
| Arabic | ★★★★★ | English | ★★★★★ |
| French | ★★☆☆☆ |  |  |

# Personal Characteristics

Innate leadership skills.

Can work under pressure.

Result- and detail-oriented.

Professional public speaker.

Advanced negotiation skills.

Advanced technical writing skills.