***Shady*** ***Abdelmalek MSc, MBA, PMP, CCNP, AWS***

**MSc. Computer Engineering**

 **BSc. Communications and Electronics Engineering**

 **MSc. Business Administration**

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 ***Summary:*** .

**- A Lead Engineer / Architect** with **over 15 years** of Professional Experience spanning **Multiple Technology** Domains including, **Networking**, **IT**, **Cloud, Machine Learning, IoT and Telecommunications**

- Diversified **Multinational / Multicultural** experience through aRemarkable Exposure to a Multitude of Customer Network Configurations in **EMEA (Europe, Middle East & Africa**)

- Proven Record of Architecting Solutions, Regional/Global, Onsite/Remote, in a multitude of Technical Domains, in both **Pre-Sales** and **Post-Sales.**

- Proven Record in Leading **Engagement Practices** activities (**RF**x) to **Create** and Maximize **Business Opportunities**

- Broad experience spanning Cloud (**AWS** and Ericson), Cisco **Networking, Security Firewalls and Automation,** and **Machine Learning** and Telecom (Ericsson, Nokia and Siemens),

- **Results Oriented, Customer focused,** and **Innovative Mindset** with excellent Communication and Presentation skills.

- **Stakeholders** and **Executives Consultations**, Presentations and Demo’s to **influence Strategic Decision Making**

***Education:*** .

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| -  **MSc.** of **Computer Engineering**  |  Cleveland State University: **Grade A** / ***GPA: 4.0/4.0***  |
| -  **MBA** Master of Business Administration  |  Arab Academy for Science & Technology: **Grade A** / ***GPA: 3.65/4.0***  |

***Certifications:*** *.*

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| -  **CCNP** ENCOR: **C**isco **C**ertified **N**etwork **P**rofessional / Enterprise Core  |  Cisco Certification  |
| -  **CCNP** ENSDWI: **C**isco **C**ertified **N**etwork **P**rofessional / Enterprise SDWAN)  |  Cisco Certification |
| -  **PCNSE**: Palo Alto Certified Network Security Engineer (In progress)  |  Cisco Certification |
| *-***AWS**CertifiedSolutions Architect |  Amazon AWS Certification |
| *-***AWS**Certified Developer (In Progress) |  Amazon AWS Certification |
| -  Ericsson **Cloud Architect**  |  Ericsson Cloud Certification |
| -  Ericsson **Transmission Network Management**  |  Ericsson NMS Certification  |
| -  **PMP (P**roject **M**anagement **P**rofessional**)** |  PMI Certification  |

***Professional Experience:*** .

***Virginia State: Department of Transportation / VDOT***  *( Contractor)*  (December 2023– Present)

***Lead Network Engineer / Architect:***

Assumed the following responsibilities as:

* **Project Networks Design, Implementation and Migration** of Road Surveillance Systems from old public infrastructure into secure private networks through Cisco Firepower, Ruggedized Cisco and Siemens Cisco Routers **and** Switches
* **Maintaining Consistent Accessibility between** main and remote sites via secure **Site to Site VPN**
* **Optimizing Network security and performance** via strict / minimal Access Privilege and Firewall Rules
* **Renovate** the existing Infrastructure and **Retire** less performant technologies.
* **Technical Solution Delivery, Management Escalation and Emergency Handling**
* **Automating** **Bare Metal, Virtualized Network and Security Firewall’s** via Cisco FMC / Firepower, Cisco ISE, SolarWinds NCM, RDS, **IPv4, IPv6,** SNMP, SSH, TFTP, IPsec/GRE VPN, VLAN’s, IPAM, VMWare / VxRail, etc.

***Project Implementations and Architecture:***

* Migration / Implementation of 400 + road surveillance systems (Ongoing)
* Re - Architecture / Renovation of existing TOC Network (Ongoing)
* Migration and Expansion of VDOT network into 2 branches (2024)
* Standardize Network Element Configuration Templates (2024)

***Firelands Regional Medical Center (FRMC****) -*  (June 2022– September 2023)

***Network Cloud Analyst / Architect:***

Assumed the following responsibilities as part of **FMRC** as anIntegration and Escalation Engineer

* **Managing and Developing** Main Campus and remote offices infrastructurethat include LAN, WAN, WLAN, etc.
* **Design and Maintain Wired /Fiber /Wireless Switching and Routing** and allocate resourcesaccording to the business need.
* **Risk Assessment** further to **Penetration Testing** / **Vulnerability Scanning** as well as scheduling **Security Patch Updates**
* **Maintaining Consistent Accessibility between** main and remote sites via secure **VPN** and **Proxy** Rule
* **Evaluate Network Resources** and proactively address looming capacity and performances issues
* Makes modifications to **Optimize Network** utilization and Maximize performance through **Change Advisory Board (CAB).**
* **Secure the Medical / Cloud Systems** by establishing and enforcing **Firewall policies** and maintaining access privileges
* **Technical Solution Delivery, Management Escalation and Emergency Handling**
* **Automating** **Bare Metal, Virtualized Network and Security Firewall’s** Upgrades and Configs via Meraki, SolarWinds NCM, Cisco Prime, DNA Spaces, EC2, S3, Route 53, Load Balancers, RDS,SNMP, SSH, TFTP, IPsec/GRE VPN, VLAN’s, DNS, DHCP, Proxy, OSPF, EIGRP, Fortinet / FortiGate, Palo Alto / Panorama, WLC’s, NetDisco, GestioIP, Nessus Scans, Ansible, Python, etc.

***Project Implementations and Architecture:***

* Meditech Migration to the IMO Cloud (Medical Cloud) based on **AWS services** (2023)
* Test Bed Building and Integration with **Cisco Network**, Virtualization and **AWS Cloud**   (2023)
* Renovation of the whole Main Campus Wireless Network of 400+ Access Points (2023)
* Improving Security Authentication through RADIUS reconfiguration for the whole network (2023)
* **Upgrading a whole Network IOS of 120+ Router Switch and Firewall** (2022-2023)
* Re-Engineering 15 Data Communication Closets in Main Campus (2022)

***CLEVELAND STATE UNIVERSITY*** (***Electrical Engineering & Computer Science Department)*** (Jan 2020 -June 2022)

***Project Research Assistant / Network and Cloud Engineer:***

* Development**,** Implementation and **Architecting** of **IoT, Cloud,** **Big Data**, **AI**, **M**achine **L**earning**, N**atural **L**anguage **P**rocessing Projects
* Assumed the following responsibilities towards **Object Oriented SW Engineering, Network** and **Digital Logic Design**:
* **Assurance** of a **High-Level** Practical and Theoretical Knowledge of students via **Material and Lab** Preparation, **Presentation** and Professional **Advising**
* **Project** assignments **Evaluation and Grading** according to **Standards** and **Best Practices**

***Project Implementations / Achievements:***

* **Cloud Network Based IoT Environment Monitoring** including **AWS Dynamo dB, S3, EC2, MQTT** messaging integration with **FPGA** and **Sensor Board** (2021)
* Dealing with **Network Automation** tools i.e. Python,Ansible, GitHub, Kubernetes and Cloud Formation (2021)
* **Embedded Linux Image Creation** using Bit Bake on Intel **FPGA** to come up with an **automated** web application **service** to handle **API** requests of **Big Data** collected by sensor boards, transferred via **MQTT,** stored to **AWS Dynamo dB** and displayed through a **Web Interface** and **LCD**’s (2021)
* Biweekly **Machine Learning** and **Big Data** Projects verification with **AWS** tools (2021)
* Medical **Question Answering Systems** using **Big Data** – NLP (**N**atural **L**anguage **P**rocessing**)** Techniques (2021)
* **Image Processing** - **Unsupervised Learning** image Clustering - **Supervised Learning** for **Image Classification** -**Neural Networks** i.e., **ANN** (single and multi-layer) for **Image Recognition** and CNN for COVID detection - **NLP** for **Text Classification / Clustering** (2021)
* **Web Scrapping / Information Extraction** from Semi Structured HTML, XML and JSON Data of Web Pages and Yelp Data Set to store to **MySQL dB** and from Twitter Real Time Data Stream to store to **Mongo dB**  (2020)
* **Information Retrieval, Indexing,** and **Text analysis** of Unstructured Data - **Classification** with ML - Designing and Building a **Prediction Model** with a ML Classifier. (2020)

***ERICSSON*** (November 2014 – November 2017)

***Senior Fulfillment Solution Architect ( Network Cloud, Microwave and Radio Access OSS/BSS) (Presales and Solution Delivery):***

***Supported Region: MEA (Middle East & Africa)***

Assumed the following responsibilities towards Cloud Network **OSS/BSS/ NMS** i.e., **Network Operation, Business Management Support and Automation** for **IT & Cloud, and Digital Transformation** technologies**:**

* **SPOC** (**S**ingle **P**oint **O**f **C**ontact) **Country Wide** towards Network Management and Automation
* **Lead Customer Workshops** and **RFx** to Maximize **B2B** Sales Volume and to **Create** new **Business Opportunities.**
* **HLD/LLD (H**igh/**L**ow **L**evel **Design), SOC (St**atement **O**f **C**ompliance**)** and **SOW (St**atement **O**f **W**ork**)** materialization
* **Complex** Requirements Analysis, Adaptation and Fault Clearance **analysis** with **R&D** for Multi-Layer Management Systems
* **Services Cost and Risk** Calculation and **Price Rationalization / Negotiation**
* **Knowledge Base Leverage** via Customer / Team **Enablement Sessions** / **Mentorship** and **Knowledge Object Creation**
* **Architecting, Leading, Implementing and integrating Multi Technology / Multi-Vendor projects that include OSS (Operating Systems Support) , Messaging, Cloud Based Core / Optical / Radio Management System** **i.e. ENM, OSS-RC, SOEM, IPTMS, EMe,** VNF (Virtual Network Function) - Life Cycle Management
* **Technical Project Management** of processes and cross team projects’ resources though out the whole life cycle, i.e.:
* **Resource Selection** and **Interviewing** to ensure the highest quality of Execution and Delivery.
* **Services Cost** and **Risk** Calculation, and **Price Rationalization / Negotiation** with different stake holders
* Technical and Resource **Conflict Resolution,** and **Risk Calculation** and **Mitigation** planning,
* Technical and administrative activity **Planning** and **Coordination** between different stake holders
* **BOQ** / **BOM** (**B**ill **O**f **Q**uantities / **M**aterial)Preparationand 3rd party **Procurement**

***Awards and Achievements:***

* 1+ Million USD - New Business Opportunity for Products and Services with WE Telecom - **Cloud Network OSS/BSS** (2017)
* 1+ Million USD - New Product & Services Architecture for EETC - **Cloud Network OSS/BSS** **Project** (2017)
* 2+ Million USD - Add On Sales of Product & Services for Etisalat - **Cloud Network OSS/BSS** **Project** (2016)
* 1+ Million USD - Add On Sales of Product & Services for Vodafone - **Cloud Network OSS/BSS** **Project** (2016)
* 1+ Million USD - New Business Opportunity for Product and Services with WE Telecom - **Cloud Network OSS**  (2015)

***NOKIA SIEMENS NETWORKS***  (June 2001 - October 2013)

***Senior Network Access, Optical and Cloud Escalation Engineer / Architect (for Access Solutions & OSS):***

***Supported Regions: EMEA (Europe, Middle East & Africa)***

***Project Locations: Portugal - Germany - Sweden - Belgium - Egypt - Syria - Lebanon - Qatar - Iran - India - South Korea***

Assumed the following responsibilities as part of **Global Support** in **SIEMENS/** **Lisbon** then **NOKIA / Warsaw**:

* **Global TIER 2 / TIER 3 End to End** Technical Solution Delivery, **Incidence**& **Escalation Management** / **Emergency** Handling
* **Architecting, Leading, Implementing and integrating Multi Technology / Multi-Vendor projects that include OSS (Operating Systems Support) and Broadband Access** **and Optical Networks**
* **Architecting and Deploying Network Performance Improvement** and **Optimization Solutions**
* **Engineering** of OSS and Access Solutions **Test Bed infrastructure**
* **On Site Project Implementation,** Upgrade and **Acceptance**
* **On Job** training **/ Mentorship** and **In Class** and **Instructor**upon the request of the **Academy** in **Belgium**
* DCN **(D**ata **C**ommunication **N**etwork**) Design** and Materialization

***Awards and Achievements:***

* 2800+ Trouble Resolution from WSE and MEA Regions as a Tier 2 and Tier 3 support (2011-2013)
* Global OSS Upgrades i.e., MCCI Iran, MTC Touch Lebanon, Syria Tel, Qtel Qatar, etc. (2011-2013)
* 10% **Cost reduction** in Egyptian Ministry of Education V-SAT, internet and, Remote Learning Project (2012)
* 300% **Time Efficiency improvement** and 50+ % **Service Cost reduction** in NOC project for WE Telecom (2011)
* Whole Commissioner of NGN Access for WE Telecom (2011-2013)

***Domains of Competence:***

* ***Cloud Computing, Machine Learning, Networking, Security and Storage:***
* **IP LAN/ WAN:** Switching and Routing (Cisco Catalyst Switches 2960,3750, 3850, 9200, 9300,4510E+R, Ruggedized IE 3xxx, Nexus 9K ,7K, 5K, Cisco Routers ISR / ASR i.e. 2811, 2911, 4321,4331, Ruggedized ISR 18xx, 8xx,11xx ), Cisco Wireless Controller 5520,5508,9800, AP’s 1248, 3702, 3802, 9130AX, Meraki MX65,68W, SIEMENS RUGGEDCOM RX1500 Router, RS900 Switch UPS’s APC15xx,3xxx, PDU’s, etc.
* IP Protocols: VLAN, STP, LACP, OSPF, EIGRP, BGP, QoS, SNMP, SSH, Authentication (RADIUS / TACACS), VPN, IPsec, GRE, HSRP / VRRP, SSL, RDS (Remote Access), DNS, DHCP, etc.
* **SD-WAN, Security Frameworks& Management Tools:** Palo Alto / Panorama, FMC / Firepower, ASA, Fortinet / FortiGate, Cisco ISE, Cisco Prime, Orion SolarWinds, Meraki, DNA Spaces, Bluecoat Proxy, IPAM (IPMan, NetDisco, GestioIP), MediGate, Management of Things, Wireshark, ITIL.
* **Operating Systems:** Linux and Windows Active Directory
* **ITSM (IT Service Management / Network Monitoring):** Orion SolarWinds, Web Help Desk, Nagios
* **HW, Storage and Centralized Backup** **Solutions**: HP and Dell Enterprise Servers, EMC VNX, Veritas NetBackup
* **IoT Edge Devices Design:** IntelFPGA for IoT Edge, Sensor Board, MQTT, Qt design, Make / Bit Bake
* **Big Data Analytics:** MySQL, Mongo dB, XML, HTML, JSON
* **Artificial Intelligence, ML and DL:** Visual Data Analysis, NLP, ANN, deep CNN, Computational Intelligence
* **Cloud and Micro Services:** Kubernetes, AWS Cloud Services such as EC2, S3, VPC, Cloud Watch, Sage Maker, etc.
* **Other Cloud and Networking (**High Level Training**):** VMware NSX / VxRail, NFV, SDN, DNAC, SDA, ACI
* **SW Integration / Coding, DevOps, CI / CD Tools:** Python, Git, Ansible, Cloud Formation, Terraform (High Level Training)
* ***Telecom OSS / BSS / Core / Access / Inventory Management:***
* **Radio** Network Management for GSM, CDMA/UMTS, LTE nodes
* **Fixed**/**Mobile** Core Networks Management
* **Microwave, Optical Transmission and Access** Networks Management
* Network Adaptive **Inventory** **Management**
* **Traffic Monitoring & Optimization**, Customer **Experience Messaging System**
* ***Technical Project Management, Planning, Procurement:***
* **Tools:** Microsoft Project, Visio, Office, and other Cost, Risk and Resources Management and Planning tools

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| ***Appendix***  ***Training & Technical Developments*** |
| ***IT, Cloud, & Security*** |  |
| **-   Amazon Web Services Certified Developer (AWS)** | Amazon - WBT’s  |
| **-   Certified Information Systems Security Professional (CISSP)** | Cleveland State University  |
| -   Technology Trainings: xDSL – ATM- Frame Relay- IP Multi Services | SIEMENS Training Institute - Cairo, Egypt |
| **-   HP Enterprise Server and Windows Networking Certification**  | HP - Vienna - Austria  |
| **-   HP Peripherals Certification**  | HP - Vienna - Austria  |
| ***OSS/ NMS / Inventory***  |  |
| -  Ericsson **Cloud Architect**  | ERICSSON - WBT’s  |
| **- ERICSSON Transport NMS Certification**  | ERICSSON - WBT’s  |
| -   Optical and Radio Management System: SO-EM / IPTNMS  | ERICSSON - OJT's - Boras, Sweden |
| -   Optical Network Management System: TNMS Core Installation | SIEMENS - Cairo, Egypt |
| -   Mobile Radio and Core Management Systems: ENM / OSS-RC / ENIQ / OMBS  | ERICSSON - WBT’s  |
| -   Mobile Core Management System: Switch Commander OSS | NOKIA- OJT's - Lisbon, Portugal |
| -   Mobile Core Management System: Switch Commander Advanced Topics  | NOKIA R&D Workshop - Bangalore, India |
| -   Mobile Radio and Core Management System: Net Act Admin 1 and 2 | NOKIA Academy - Cairo, Egypt |
| -   Mobile Radio and Core Management System: Net Act Advanced Topics | NOKIA - Remote Workshop - Warsaw, Poland |
| -   Mobile Radio and Core Performance Management: Net Act Traffica  | NOKIA - Remote Workshop - Warsaw, Poland |
| -   Fixed Core Management System: Net Manager OSS Advanced Topics | SIEMENS Training Institute - Cairo, Egypt |
| ***NGN Access/ Transport / Core*** |  |
| -   MSAN and Carrier Switches: Advanced Topics  | NOKIA - OJT - TIER3 - Lisbon, Portugal |
| -   Carrier Switches OAM | SIEMENS Training Institute - Munich, Germany |
| -   IP DSLAM: OAM  | SIEMENS Training Institute - Munich, Germany |
| -   G PON: OAM | SIEMENS - Workshop - Greifswald, Germany |
| -   GE PON: Advanced Topics | DASAN Networks - TIER3 - Seoul, South Korea |
| -   IP DSLAM: Advanced Topics | DASAN Networks - TIER3 - Seoul, South Korea |
| -   Carrier Switches: Advanced Topics | DASAN Networks - TIER3 - Seoul, South Korea |
| -   Flexible Multiplexers: FMX2 OAM | SIEMENS Training Institute - Munich, Germany |
| -   Optical Network Equipment: OAM / Advanced Topics | SIEMENS Training Institute - Cairo, Egypt |
| -   Fixed Core Exchange: EWSD Intro (Voice/ Data i.e. Circuit/Packet Switching) | SIEMENS Training Institute - Cairo, Egypt |
| ***Leadership / Sales / Quality*** |  |
| -   **Leadership** Skills and Effective Communication | Quali Train - Cairo, Egypt |
| -   Achieving Superior Service / How to Wow your customer  | NOKIA - TIER3 - Cairo, Egypt |
| -   KT Resolve for Analytical Problem Solving  | NOKIA - TIER3 - Lisbon, Portugal |
| -   **SPIN Selling** | ERICSSON - WBT’s |
| -   **Lean 6 Sigma**  | NOKIA - Remote Workshop |
| -   **ITIL** 4 Exam Preparation | Learn Quest – Coursera |
| -  **TOGAF** / Enterprise Architecture  | Petersburg Polytechnic University |
| -   **eTOM /** Business Process framework  | Petersburg Polytechnic University |