

MOHAMAD HAIDAR

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PROFILE

Highly qualified and tenacious professional armed with broad-based background and skills in the areas of qualitative analysis, performance evaluation, patent analysis, wireless network design and optimization, research and many more. Displays outstanding ability to plan, coordinate, and implement practices and procedures to bring significant improvements in efficiency, quality and processes towards the successful attainment of organization goals. Primarily striving to understand clients' needs and provide them exceptional results through a cognitively flexible and positive approach. Determined to implement earned skills and knowledge for the rapid growth of the prospective organization by working effectively and consistently.

EXPERTISE AND QUALIFICATIONS

- **Ph.D.** in Applied Science (Wireless), **M.S.** in Telecommunications, and **B.Eng.** in Electrical Engineering.
- Over **12 years** of experience in Telecommunications and wireless communications (RF Capacity planning, RF coverage prediction, RF propagation/optimization, Microwave Planning/Design, Research and Development).
- Experience with various RF Engineering Tools: EDX, Planet, NetSurveyor, AirMagnet WiFi Analyzer, inSSIDer, Pathloss, Atoll (MW), Wireless InSite, OPNET, Qualnet, PQM.
- Ability to thrive under pressure and handle multiple tasks simultaneously; Great presentation and teaching skills.
- Excellent technical and analytical skills, specifically in the area of telecommunications, wireless communications, network design, and network simulations.
- Conducting searches on patentability, validity, freedom-to-operate and infringement.
- Experienced in RF network design, capacity planning, frequency planning, antenna selection, link budget, Coverage testing, Interference analysis
- Developing company business awareness and learning customer needs to inform new developments.
- Engaging in special information projects. Assisting project teams by offering technical and business data.
- Expertise in handling issues while ensuring optimal utilization of resources.
- Expertise in designing world class systems and implement quality processes that will enable organization to consistently meet and enhance customer satisfaction.
- Flexible to change with excellent planning and execution skills and works well within the constraints of tight deadlines.
- Strong communication skills contributing to effective working relationships with co-workers and clients.
- Exceptional leadership, management, planning, organisation, problem structuring and solving, critical thinking and decision-making skills. Excellent interpersonal, conflict resolution and counselling skills.

EDUCATION

- **Ph.D. in Applied Science** | University of Arkansas at Little Rock, Little Rock, AR **Dec. 2007**
Dissertation Title: "Dynamic Load-Balancing and Channel Assignment in IEEE 802.11 Indoor Wireless LANs" GPA: 4.0
- **M.S. in Telecommunication** | Roosevelt University, Chicago Illinois **May 2002**
Thesis Title: "Examining the Performance of Voice Packets over IP based Local Area Networks" GPA: 3.92
- **B.E. in Electrical Engineering** | Lebanese American University, Beirut, Lebanon **July 2000**
Project Title: "Location of Transmission Lines Faults using Digital Fault Recorders"

CERTIFICATIONS

- OSHA 10 **Feb. 2018**
- Commscope ION-E Installation and Commissioning **Jun.2018-Jun. 2020**
- Ericsson RDS Channels Installation **Aug. 2018**

WORK EXPERIENCE

Black and Veatch | **Lead RF Engineer** **Jun. 2019-Present**

Key Responsibilities and Achievements:

- Design, plan, and optimize PtMP WiMax/LTE links using EDX for a Field Area Network (FAN) project of all upstate NY.
- Perform pre-installation surveys and radio path surveys.
- Lead field testing and construction efforts for the WiMax BSs and LTE eNBs.
- Meeting weekly with the client, along with Project Managers, to provide feedback on RF progress.

- Coordinate tasks among path validation providers (Tilson, Council Rock, Airosmith).
- Troubleshoot construction and radio network design issues in the field.
- Write Methods of Procedures (MOPs).
- Leading a team of 4 RF Engineers (3 Jr. and 1 Sr.)
- SME in WiFi including 802.11ax (WiFi 6-unlicensed 6 GHz)
- Member of the multi-stakeholders group of WiFi 6.

Engineering Wireless Services | Principal RF Engineer

Dec. 2017-Apr. 2019

Key Responsibilities and Achievements:

- Utilized IBWAVE to create new designs and evaluate vendor designs.
- Experienced in various IB DAS architecture solutions: Public Safety DAS, DRAN, Cel-Fi, Ericsson DOT, Commscope ION-E, SpiderCloud, SoLiD (Express and Alliance), and others.
- Utilized my knowledge in GSM, LTE, UMTS and microwave to contribute in network design.
- Proficient and experienced in RF tools such as scanners (PCTel), Spectrum Analyzers (Anritsu), and post-processing software (Wind Console).
- Performed and lead drive test teams (Indoor/Outdoor) to collect QoS, benchmarks, and CW data.

Benedictine University/University of the People | Adjunct Professor (Computer Networks)

Aug. 2017-Dec. 2017

Key Responsibilities and Achievements:

- Taught and motivated students to excel in their academics. Monitored students' progress throughout the courses (CMSC365/366- Computer Networks and Data Communications with Lab) and MATH095- Algebra.
- Demonstrated commitment to the institutional mission, goals, and objectives.
- Developed lesson plans, instructional materials, Wireshark labs and other strategies to ensure that every student had a thorough knowledge of the subject.

Global Patent Solutions | Research Analyst

July. 2016-Oct. 2017

Key Responsibilities and Achievements:

- Communicated with clients to effectively review and gain an understanding of technical aspects of client inventions and technical search concepts
- Performed extensive database research into US patents, Published US Patent Applications, International (PCT/WO) Publications, Foreign Patents, Foreign Published Applications and Published Technical Literature.
- Performed PCT Search, examination, and written opinions.
- Reviewed, gathered, and analyzed technical literature.
- Prepared detailed reports regarding research findings in a timely and high-quality manner.

DeVry University | Adjunct Professor in the College of Engineering and Information Science

Oct. 2010-Jun. 2016

Key Responsibilities and Achievements:

- Taught and motivated students to excel in their academics. Monitor students' progress throughout the courses (NETW360- **Wireless Technologies** and Services with lab (2010-2011), NETW320- Converged Networks with Lab (2011), and NET561/562/563/589-Wireless Technologies (Graduate level, 2012/2013)).
- Designed course material and assisted other professors in teaching and motivating students.
- Assisted students achieve their academic goals and objectives. Demonstrated teaching excellence.
- Ensure compliance of university policy and procedure guidelines. Document all academic processes.

bluNEXUS | RF Engineer Consultant

Nov. 2015-Jun. 2016

Key Responsibilities and Achievements:

- Planned, designed, and optimized Microwave Backhaul networks using PQM tool (similar to pathloss but with more powerful GUI interface that incorporates Microsoft Bing maps with 10m resolution (North America) and 30m resolution (the rest of the world)). Tasks included, but not limited to, **performing LOS analysis, interference analysis** (displaying the results of the link as a victim and as an interferer), **repairing Hi/Lo conflicts, link design to meet availability objectives** (ITU-R P.530-14), **frequency planning, ATCP** (when supported by equipment), and so on.
- Also, I conducted webinars to demonstrate PQM capabilities and features to various customers around the globe.

SAR Insight & Consulting | Senior Wireless Analyst

Aug. 2015-April 2016

Key Responsibilities and Achievements:

- Researched and analyzed new technologies, such as IEEE 802.11ac/ad/ay/ah, Internet of Things, and 5G to present in a market analysis report.
 - Conducted primary and secondary research. Collected and analyzed quantitative research.
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- Interpreted data, formulated reports and made recommendations.
- Evaluated key data to ensure that data on the releases are accurate and the angle of the release is correct.
- Remained fully informed on market trends, other parties' researches and implemented best practices.

Mobinets | Product Manager & SME (MW/WiFi)

Mar. 2012-Aug. 2015

Key Responsibilities and Achievements:

- Participated in the enhancement of an existing RF products and Microwave tool, NEP, (experienced in **Pathloss, iQlinkXG, PQM**) and started the development of new tool in the **WiFi** field.
- RF Planning, designing, and optimizing algorithms related to **Frequency Planning, interference analysis, LOS analysis, and Transmit Power optimization** in Microwave and WiFi networks.
- Modeled equipment and port configuration for **Alcatel-Lucent, Nokia-Seimens, and Huawei** equipment.
- Full understanding of **ITU norms (ITU G.821/826/828 P.530-9/12/13/14, P.837-3/5/6/7)** related to Rain intensity/Rain loss, E-to-E performance calculations, propagation data and prediction methods used in MW planning.
- Planned and optimized huge MW networks and provided **WiFi** consultations at customer premises, such as Vodafone UK, Wataniya Kuwait, Meditel/INWI Morocco, IndoSat Indonesia, OCI Kenya.

Ecole de Technologie Superieure and Ultra Electronics Inc., Montreal, Canada | Wireless Simulations Specialist

Oct. 2010-Feb. 2012

Key Responsibilities and Achievements:

- Simulated and optimized different RF wireless technologies (**WiFi, WiMax, Ad Hoc**) using Qualnet (Exata) for various military wireless infrastructures.
- Responsible for defining specifications, network components modeling, and documentation.
- Managed a small team of engineers and participated in implementing new PHY/MAC protocols that meet military environments. Developed documentation on new and existing systems.

Ecole de Technologie Superieure and Intelligent Software Radio Inc., Montreal, Canada | Wireless Research Engineer

July 2009-Oct. 2010

Key Responsibilities and Achievements:

- Developed a dynamic bandwidth allocation algorithm in a satellite communication network.
- Implemented algorithm in NS-2 simulator. Tested and demonstrated the full intelligent bandwidth allocation functionalities on a testbed platform and simulator. Technically guided project team and defined strategic goals.
- Directed project management responsibilities for systems project.
- Prepared technical goals for the project team, reviewed the progress, and participated in the relevant parts of associates' performance reviews. Maintained a balanced portfolio of existing and new tasks.

HighTech Solutions, Montreal, Canada | Patent Analyst

Mar. 2008-Feb. 2009

Key Responsibilities and Achievements:

- Provided technical and intellectual property consulting in the fields of Wireless Networking.
- Evaluated and analyzed patent infringement, patent applications, and quality of claims.
- Developed business cases for portfolios of interest.

Ecole de Technologie Superieure, Montreal, Canada | Post-Doctoral Fellow

Feb. 2008-Jan. 2009

Key Responsibilities and Achievements:

- Analyzed and selected cognitive radio architectures for Cognitive Wireless Mesh Networks (**CWMNs-802.11**).
- Proposed QoS continuity protection models for CWMNs. Developed power management approach for CWMNs.
- Presented CWMN approaches, architecture, designs, and economical frame works to the project committee monthly.
- Developed business cases for portfolios of interest.

UALR-ALLTEL-MOTOROLA project, Little Rock, USA | RF Engineer

Aug. 2006-July 2007

Key Responsibilities and Achievements:

- Analyzed GSM and UMTS trials on university campus (indoor and outdoor). Simulated real-time indoor and outdoor environments and what-if scenarios using OPNET, MATLAB, and RF propagation tools.
 - Performed RF coverage predictions and RF capacity planning for indoor and outdoor environments. Provided feedback concerning network optimization procedures (optimal channel assignment, optimal site selection, better antenna configurations).
 - Lead and trained more than 20 students during site-surveying tests everyday (different building materials, several floors, etc...). Participated in designing, documenting and testing of digital radio system components.
 - Collected, organized, and analyzed data collected from site-survey tests using MS Excel sheets. Submitted proposals and reports to higher management for further study.
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PROFESSIONAL AFFILIATIONS

IEEE Member, WiMax360 member, WiFi Groups, Telecommunications groups

ADDITIONAL INFORMATION

Over 5 journal articles, 17 conference papers, 1 book chapter and 1 Market research report in the field of Telecommunications and Wireless communications.

Publication list available upon request

GENERAL SKILLS AND COMPETENCIES

- Achieving goals, creative/strategic thinking and problem solving.
- Excellent ethics, hardworking, focus minded and sound organizational ability.
- Possesses a positive, mature and professional attitude. Excellent sense of initiative, tidiness, adaptability and networking. Ability to communicate effectively and build relationships with clients and colleagues.
- Excellent clients' service manner and interpersonal skill. Highly motivated to learn more.
- Excellent organization and time management skills demonstrated by ability to work both autonomously and as a positive team player. Detail and result oriented.
- RF Engineering Software Tools- AirMagnet, NetSurveyor, inSSIDer, Atoll (MW), Pathloss, OPNET, Wireless InSite (Indoor/Outdoor Propagation Tool, EDX SignalPro, Planet, Qualnet (EXATA), PropLAB by Elektrobit, ATDI (RF Simulation tool), Mobinets NEP (Microwave Module).
- Programming Languages- MATLAB, Turbo Pascal, HTML, working knowledge in Visual Basic, and LINGO by LINDO systems.
- Technical Knowledge of (but not limited to)- LTE, WiMAX, 3GPP, GPRS, GSM, Ad Hoc, Wireless Mesh Networks (802.11a/b/g/n/ac/ad/ay), Cognitive Radio Systems, Bluetooth SIG Technology, Sensor Networks