

ANDRES CASTILLO

Telecommunication engineer with a MSc in Engineering Management and 3+ years operations research, business analysis and project management experience. Creative and passionate problem-solver who thinks big and is motivated in developing new approaches to optimize business operations.

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PROFESSIONAL EXPERIENCE

Research Assistant – University of Alberta

Mar/2018 – Aug/2018

Research assistant responsible for providing research, data analysis, and data modeling using Operations Research and Data Sciences techniques to develop business and operational solutions to effectively optimize processes.

Research Assistant – University of Alberta

Sept/2015 – Feb/2018

Conducted applied research to support the capacity optimization and availability analysis of large-scale optical transport networks. Developed LP/MIP models using optimization tools as AMPL, IBM CPLEX, Gurobi.

Project Engineer – Itterra Telecommunication

Feb/2013 – Nov/2013

Designed and provided support for the implementation/maintenance of various telecommunication and networking projects. Realized projects varied from \$10k to \$1.0m and were realized in different countries of Latin America.

Field Engineer – Gandalf Communications

Nov/2012 – Jan/2013

Installed and administered LAN and WAN networks based on Cisco and Ubiquiti network wireless technologies. Operated in a fast-paced, on-call, and challenging 24x7 environment.



PROJECTS

Master's Thesis Project

"Dual-Failure Restorability in Meta-Mesh Networks"

Designed an ILP model that produces a minimum-cost large-scale optical network that is fully restorable in the event of a dual failure scenario.

Product & Business Analysis Project

"DiMoveNet"

Designed and presented a new wireless network communication design. The project included trademark and patent strategy, market report, risk analysis, economic analysis, and commercialization strategy.

CN Railway Optimization Project

Collaborated with Canadian National Railway on the development of a mathematical model for fuel consumption prediction on freight trains.

BOD Venezuelan Bank

Provided support for the installation of a new telecommunication cabling system for the main data center of Venezuela's fifth-largest bank.



EDUCATION

MSc. in Engineering Management

University of Alberta

BSc. in Telecommunication Engineering

Universidad Rafael Urdaneta (Venezuela)



CERTIFICATIONS

- Cisco Certified Network Associate
- Microsoft Certified Professional
- Microsoft SQL Data Warehouse
- Microsoft Power BI Professional
- Tableau for Business Intelligence



RELEVANT COURSES

- Engineering Project Management.
- Maintenance & Asset Management.
- Operations Research & Optimization.
- Reliability Engineering & Risk Analysis.
- Product Commercialization and IP.



TECHNICAL SKILLS

Software

MS Office (Word, Excel, PowerPoint), MS Visio, MS Project, SQL Server, SSIS, SSAS, SSRS, MS Power BI, and Tableau.

Networking

Optical Networks: DWDM, IP/MPLS, ATM, SONET/SDH, OXC, OADM, ROADM.

Networks: DHCP, BGP, EIGRP, OSPF, VLAN.



ADDITIONAL INFORMATION

Professional Association

APEGA Engineer-in-Training.

Volunteer Work

VP Academic for the Mechanical Eng. Grad. Students' Association (1 year).