

Curriculum Vitae

1. **Family name** Lagos
2. **First names** Mario
3. **Date of birth** August 13, 1952
4. **Nationality** Chilean
5. **Civil status** Married



6. Education

Institution	Universidad de Chile
Date:	1979
Degree(s) or Diploma obtained	Master of Science, Applied Mathematics

7. Language skills

Language	Reading	Speaking	Writing
English	5	4	5
French	4	1	1
Spanish	5	5	5
Swedish	5	5	5

8. Membership of professional bodies

Informs, section of Transport Science & Logistics

9. Other skills

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10. Present position

IT Manager
Senior Consultant, Transrail Sweden AB

11. Years with the firm

Employed 1998

12. Key qualifications

- IT system development
- Mathematical modelling
- Intelligent Transportation Systems
- Freight logistics and operations research
- Traffic operations and planning
- Modelling and simulation of transportation systems

13. Foreign Countries professionally visited

Country	from	to
Schwitzerland		

14. Professional Experience Record

Date: September 1998-
Location: Stockholm, Sweden
Company: Transrail Sweden AB
Transrail is a professional firm, with the prime objective to provide systems engineering services and advice on technical strategies in the transport sector, especially the railway sector. The company was started in 1995.

Position: IT Manager and Senior Consultant

Description

2008-

Circulation planning for tendering of Stockholm's tub.

Customer: Stockholm Tub

2007-

Project RailEnergy. Standardisation work of the CATO at a european level. Modelling of CATO functions at the traffic control centre.

Customer: The Swedish Railway Administration (Banverket, BV)

Analysis of the potential for cost decrease and quality increase of driver training in Chile by the introduction of a driver simulator.

Customer: The Chile – Sweden Partnershipfund

2002-

Maintenance and marketing of the Trains and the TSDA system.

Kund: Internal project

2007

Analysis of the potential for energi saving of Arlanda Express train operation, covering driving, auxiliary power and HVAC.

Customer: Arlanda Express

2006

Flow calculations for the design of a new railway traffic system for the transport from and to the Stockholm harbour. Calculations were performed with the TSDA-system. A more detailed information about the TSDA system is found at the following link:

<http://www.transrail.se/new/tsda.html>

Customer: Ports of Stockholm

2004-2006

Project manager for the CATO field tests.

The CATO project aims to optimize train driving, reducing operational costs and enhancing capacity. Field tests are started to verify and update the System Requirement Specification. A more detailed information about the CATO system is found at the following link:

<http://www.transrail.se/new/cato.html>

Kund: Banverket och LKAB

2003-2004

Analysis and forecasting of maintenance to dimension maintenance contracts for the fleet of rolling stock of the Swedish State Railways, including development of ad hoc analysis tools.

Customer: Swedish State Railways

2003

Project manager for the enhancements in the TSDA system to plan a new intermodal transport system for Rail Combi.

Customer: RailCombi

2002-2003

Train performance calculations and traffic planning for the Eskisihir Tramway in Turkey.

Customer: Bombardier Transportation

Development of TSDA, a computer system for calculation of empty-trip generation and distribution for the freight transport. The system has been applied to model the total transport in Sweden, including trains, lorries, ships and inter-modal transports as well domestic, import, export and transfer flows.

Customer: The Swedish Institute for Transport and Communication Analysis (SIKA)

2002

Project manager for the development of the System Requirement Specification for the CATO system.

Customer: The Swedish Railway Administration (Banverket, BV)

2000-2001

Project manager for the development of Trains Scheduling, a computer system for scheduling and management of railway traffic, rolling stock fleet and train crews. A more detailed description of the Trains scheduling system is found at the following link:

<http://www.transrail.se/new/scheduling.html>

1999

Manager of a R&D project for computer assisted train operation. That system became be called CATO.

1998

IT-strategy and System Implementation for the current operator (Citypendeln) of Stockholm commuter train system.

Date: 1996-1998

Location: Västerås, Sweden

Company: ABB Atom
Nuclear Fuel Division, Calculation Systems

Position:

Description:

1997-1998

Core Watch. Theoretical study for new strategies for monitoring a nuclear reactor, including a simulator for (direct) calculation of the thermal margins and neutron measuring devices and for continuous (indirect) measurements of power distribution. Core Watch consists of statistical tools for comparison of theoretical calculations and measurements and for decision support.

1997

Updating of training simulator for the nuclear plant in Leibstadt, Switzerland.

1996-1997

Development of a program for calibration of TIP-detectors (used for measurement of neutron flux). The program is operating at the nuclear plants Forsmark I and II.

Date: 1990-1996

Location: Västerås, Sweden

Company: Swedish State Railways (SJ), Stockholm, Sweden
Traction and Rolling Stock Division

Position: IT planner

Description:

1995

Development of a program for the analysis of the production at the SJ's workshops. This project is a part of the IS-planning mentioned below. The program was installed at all workshops owned by SJ.

1994

Development of a program for the analysis of the market for the freight transport. Keywords are modal split and cost of production. The program is being used by the project "Cargo System 2000". This project pursues to give a vision for a future Swedish freight transportation system.

1992

Planning of the simulation systems for the Technical Department at SJ. The simulation system comprises tools for technical analysis of vehicles and infrastructure and traffic planning.

1990-1993

Planning of the information systems for the vehicle maintenance at SJ. By the study date, maintenance activities comprised 2500 people and costed 250 million US dollar by a year. The objective of the project was to propose organizational actions and the necessary software to reduce maintenance costs.

Date: 1985-1990

Location: Västerås, Sweden

Company: ABB Traction, later Adtranz Sweden
(today part of Bombardier Transportation)

Position:

Description:

1985-1990

Development of a simulator for dimensioning of electrical locomotives and feeding system. The simulator is used to calculate the performance of various systems and subsystems to fulfil a specified traffic-schedule. Train subsystems are main transformer, converters, motors, gears, wheels, auxiliaries, etc. Power supply subsystems are substations, catenaries, feeders etc.

Date: 1980-1985

Location: Västerås, Sweden

Company: ABB Corporate Research

Position:

Description:

1984-1985

Development of a calculation program for dimension of equipments for HVDC-transmission. The program calculates various parameters at the utility frequency, the DC-system as well as for harmonics.

1983-1984

Development of a program for calculation of gearboxes for traction applications.

1980-1983

Development of a program for dimensioning of brakes at marshalling yards.

15. Others

Selection of Courses/Certificates: