

Marco Dieleman

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Experience Summary:

Chemical Engineer with over 19 years of experience in creating and using analytical modeling software for the power generation industry. Worked on a variety of power plant research projects, feasibility studies, acceptance test calculators, fuel demand models, re-powering studies, dispatch optimization studies, performance optimization studies, and on-site troubleshooting. Expert in using GateCycle, a heat and mass balance software product, and Efficiency MAP, a condition monitoring system involving statistical methods and on-line data acquisition. Developed large pieces of the GateCycle software code. Certified Six Sigma Green Belt.

Power Plant Expertise

- GateCycle Expert
- Performance and Condition Monitoring
- Power Plant Design and Performance Evaluation
- Gas and Steam Turbines, Pumps
- Fossil Boilers, Heat Exchangers
- Gasification, Fuel Cells, Desalination

Software Development Expertise

Software Platform: Microsoft OS
Languages: C/C++, Fortran, Java, HTML, Perl, SQL and Visual Basic
Applications: GateCycle, Microsoft Visual Studio, Microsoft Office

Professional Experience:

World Wide Energy Solutions, Mountain View, CA, USA (2004-present)

Sole Proprietor, Founder, Senior Consultant to the Power and Water Industries

- Delivered consulting services, such as fuel demand models, dispatch optimization models, PPA-bid support and design optimization to the power and water industries (USA, UK, Oman, Qatar, Bahrain, UAE, KSA, Thailand).
- Re-powering and retrofit studies for combined cycle plants as well as coal plants (USA, Thailand)
- Created and improved analysis software for the power industry (USA, Austria)

General Electric Corporation, Menlo Park, CA, USA (1999-2004), (GE acquired Enter Software and its sister company in 1999)

Software Development

- Completed development of several enhancements to the GateCycle code, which are crucial to GE Power Systems' bidding process (steam turbine, heat exchangers, gas turbine, pumps, cooling towers etc.).
- Provided worldwide technical support to over 200 GateCycle customers. Established and maintained high quality ratings based on customer satisfactions surveys
- Implemented Acceptance Test Calculations for an Enhanced Oil Recovery site with 4 GT, HRSG and ASU trains in Mexico, allowing the plant to be handed over to the new owners.

- Taught over 20 GateCycle training courses, many of which were sold out
- Wrote and edited over 500 pages of the training manuals and on-line help for GateCycle
- Earned “Top” performer status (top 20% of GE’s employees)

Technisches Büro für Energietechnik dr. Pechtl, Graz, Austria (1996-1999), (a sister company of Enter Software, Inc.)

Project Management, Software Development, Research & Development

- Developed and enhanced GateCycle’s coal combustion calculations (fossil boiler, fluidized bed boiler, feed water heaters), doubling the market potential.
- Researched advanced energy systems for EPRI (fuel cells, ammonia cycles), leading to papers and publications for the customer
- Conducted feasibility studies for Austrian customers (OMV, DrauConsulting), enabling the customer to make an informed decision which power plant technology to chose for their applications.
- Mentored and trained several new employees. Increased the consulting team from 2 to 7 members
- Worked on several Efficiency MAP installations (Akzo Nobel, Stork, HEW)

Enter Software, Inc., Menlo Park, CA, USA (1992-1996),

Software Development, Research & Development

- Improved modeling algorithms of GateCycle software code (gas turbine, etc.)
- Led consulting projects for Enter Software’s most important customer, EPRI, on advanced power systems, such as IGCC, CHAT, ISCC. These studies resulted in several publications and patents for the customer
- Constructed detailed calculation models for several Efficiency MAP installations (Florida Power & Light, Florida Power Corp)

Education:

- Engineer(M.S.), Chemical Engineering, Eindhoven University of Technology, The Netherlands
- Took several computer classes through University Extension Programs, C, C++, C#, Java
- DMAIC 6-sigma courses; Certified 6-sigma Green Belt
- Fluent speaker in Dutch, English and German. Reading skills in: French and Spanish

References:

available on request