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WEI HUANG, Assistant Vice President - System Architecture

Wei Huang is Assistant Vice President of System Architecture at Innovative Scheduling. He holds a B.S. and M.S. in Control Theory and Engineering from Tsinghua University, Beijing, China, and a Ph.D. in Industrial and Systems Engineering from the University of Florida, Gainesville. Huang specializes in solving large-scale optimization models arising in logistics and transportation. He has considerable experience in packaging optimization algorithms within user-friendly, web-enabled decision support systems, which have been well received by industry practitioners. Huang's operations research skills are complemented by his acute knowledge of computer science, including advanced data structures, databases, and software engineering. This unique combination of skills enables Huang to engineer holistic software solutions.

Prior to joining the company, Huang designed and implemented several commercial-grade production systems that employed a variety of programming languages and database environments. These include traffic management systems for Yantai City, China, an information management system for Fujian Refinery, China, and a water management and optimization system for the city of Cocoa, FL. At Innovative Scheduling, Huang developed a suite of controls that facilitate rapid packaging of optimization and simulation algorithms into web-enabled decision support systems. He is one of the lead developers of the Innovative Railroad Blocking Optimizer and the Innovative Train Scheduling Optimizer.



PROFESSIONAL EXPERTISE

- Modeling and solving complex large-scale supply-chain and network optimization problems
- Seasoned veteran in applying optimization techniques including LP, MIP, Column Generation, and Heuristics
- Programming abilities in C/C++, C#, VB .NET, ASP.NET, Silverlight, SQL Server, Concert Technology, and CPLEX
- Proficient in XML/HTML/DHTML, Javascript, VBA, ESRI, ArcObjects, Arena/SIMAN
- Database design and implementation
- System design and architecture

SELECTED PAPERS

- "A Heuristic Approach to the Multi-Period Single-Sourcing Problem with Production and Inventory Capacities and Perishability Constraints," R.K. Ahuja, W. Huang, H.E. Romeijn, and D. Romero Morales, *INFORMS Journal on Computing* 19 (2007), 14-26.
- "The Continuous-Time Single-Sourcing Problem with Capacity Expansion Opportunities," W. Huang, H.E. Romeijn, and J. Geunes, *Naval Research Logistics* 52 (2005), 193-211.
- "Multi-period Single-Sourcing Problem with Capacity Expansion Opportunities," W. Huang, H.E. Romeijn, and J. Geunes, *Naval Research Logistics* 52 (2005), 193-211.

SELECTED PROJECTS

- Web-enabled decision support system for railroad blocking, funded by National Science Foundation
- GIS-enabled decision support system for railroad networks optimization
- Web-enabled decision support system for train scheduling, funded by National Science Foundation
- Network planning model for an intermodal company
- Windows applications to automate the train plan optimization process for BNSF
- Yard closure study for CSX