

BEN PETERSON, PHD

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Superior, CO 80027

profile

Conscientious professional with a passion for problem solving. Interested in finding profitable opportunities through intelligent logistics and strategic planning. Motivated by creative and practical ideas that add value to projects and businesses. Experienced with large-scale problems of scheduling, routing, and network optimization.

An independent thinker and worker; able to manage projects efficiently with minimal oversight. An excellent communicator; including presentations, technical writing, and explaining complex concepts. Performs well on feet and under pressure. A quick learner who adapts well to new environments.

employment

Senior Manager of Business Strategy, Level 3 Communications, 2010 - present

Design and solve optimization models for various business groups. Projects involve circuit routing, equipment placement, capacity planning, investment scheduling and design of network expansions.

Instructor, Tepper School of Business, 2008

Taught "Production/Operations Management": strategic planning for manufacturing and services.

Teaching Assistant, Tepper School of Business, 2006-2009

Graded papers, presented recitations, and tutored students for ten MBA courses at Tepper:

"Optimization and Decision Making" ('06, '07, '07, '08, '09), "Optimization in Finance" ('07, '07, '08)

"Operations Research Techniques for Consultants" ('09), "Operations Management Project" with Amazon.com ('09)

education

PhD, MS, Tepper School of Business, Carnegie Mellon University, 2010

Major: Industrial Administration: Algorithms, Combinatorics & Optimization. GPA: 3.73.

BA, University of Minnesota, Morris, 2002-2005

Majors: Mathematics, Physics. Minors: Statistics, Chemistry. GPA: 3.80.

research

"A Benders Decomposition Method for Fixed-Charge Network Design", 2010

Project supported by IBM to develop network design algorithm applying recent developments in Benders decomposition. Produced a major speed improvement over standard methods for certain classes of problems.

"An Algorithm for Scheduling Multiple Factory Cranes on a Common Track", 2009

Consulting project with ABB group to develop a specialized algorithm for scheduling tasks and routing cranes in a factory with dynamic, interdependent movement constraints.

"B/S/H/ Optimizes Inbound Logistics", 2008

Consulting project with Bosch-Siemens appliances to optimize inbound freight transportation for three factories in New Bern, NC. Developed robust MIP model to identify incremental changes with maximum cost reduction.

Computational Optics at 3M, 2004-2007

Designed mathematical optics model to simulate liquid crystal behavior in lieu of manual experiments. Used optimization techniques to design new liquid crystal films for LCD displays.