

Matthew M. Heise

matthewheise2019@u.northwestern.edu

(708) 606-4235

Education

Northwestern University

Master of Engineering Management, GPA: 4.0/4.0

anticipated Jun 2018

Iowa State University

Bachelor of Science, Mechanical Engineering

May 2007

Experience

CB&I (Chicago Bridge & Iron Co., NV) - *Plainfield, IL*

April 2015 to Present

Senior Piping Engineer

- ♦ Deliver data-driven solutions to optimize business decisions through quantitative modeling and analysis
- ♦ Designed a linear programming model in MS Excel to evaluate cost and labor for multi-office project execution
- ♦ Created a multi-channel queuing model in MS Excel with VBA programming to determine an optimal number of scarce resources (piping designers) to allocate to checking a batch of 30,000 pipe spool drawings
- ♦ Analyze piping systems up to 36" NPS to minimize pipe stresses and optimize structural loads for gas storage, processing, and power generation facilities in the Oil & Gas and Power industries
- ♦ Network with intercompany offices to build synergistic relationships and initiate work sharing arrangements
- ♦ Assisted with recruiting and mentored and trained 3 junior engineers on industry standards and best practices

Meyer Tool & Manufacturing, Inc. - *Oak Lawn, IL*

June 2014 to April 2015

Project Manager

- ♦ Developed a MS Excel database of management tools for improving project estimating and performance tracking
- ♦ Estimated and managed projects up to \$2MM while maximizing client value through make/buy decision analysis
- ♦ Performed 2 manufacturability studies to reduce project risk for 2 independent clients looking to machine a custom chemical sampling unit and build a proof of concept pressure vessel prototype
- ♦ Researched and validated new manufacturing processes to meet clients' unique challenges, including Aluminum-Monel welding, < .05 emissivity coatings, and < .010" holes with electrical discharge drilling

CB&I (Chicago Bridge & Iron Co., NV) - *Multiple Locations*

Project Engineer - *Plainfield, IL*

May 2012 to June 2014

- ♦ Led multi-discipline teams of 5-10 to design structural, piping and electrical systems for gas storage tank projects
- ♦ Coordinated a product standardization project to reduce engineering project schedules by 3 months

Mechanical Engineer - *Plainfield, IL*

March 2009 to May 2012

- ♦ Designed CL150-CL600 process, firewater and utility systems for a \$500M LPG storage & processing facility
- ♦ Collaborated with client and field construction teams to initiate, resolve and approve technical inquiries

Commissioning Engineer - *Cove Point, MD*

August 2008 to March 2009

- ♦ Managed 2 technicians while commissioning over 200 instruments and valves for a LNG Terminal Expansion
- ♦ Consulted with vendors, sub-contractors, and management during 80+ hour work weeks to secure start-up resources

Mechanical Engineer - *Plainfield, IL*

February 2008 to August 2008

- ♦ Wrote, reviewed and maintained specifications, drawings and calculations for energy projects up to \$2B value

Field Engineer - *Sabine Pass, TX*

June 2007 to February 2008

- ♦ Supervised and enforced design tolerances for 155,000 m³ capacity LNG storage tanks, allowing us to air raise 5 umbrella shaped steel roofs, each weighing in excess of 2MM pounds, for a grassroots LNG Import Terminal

Skills

- | | |
|--------------------------------------------|-------------------------------------|
| ♦ Financial Modeling and Analysis | ♦ Decision Analysis |
| ♦ Linear Programming using Microsoft Excel | ♦ Regression Analysis & Forecasting |
| ♦ Multi-Objective Optimization | ♦ Monte Carlo Simulation |

Relevant Coursework

- ♦ Engineering Management, Accounting, Decision Tools for Managers, Strategic Process Analysis & Improvement, Systems Engineering and Project Management, Engineering Management Theory, Engineering Economics

Professional Memberships & Certifications

- | | |
|--------------------------------------------|------------------------|
| ♦ Toastmasters International | March 2010 to Present |
| ♦ Engineer Intern – State of Iowa | June 2007 to Present |
| ♦ American Society of Mechanical Engineers | August 2005 to Present |