

# Kirtland MCKENNA

## CONTACT INFORMATION

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## SKILLS

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Engineering: Quality Assurance, System Design and Optimization, Project Development Cycle, Multi-Disciplinary Critical Thinking, Design of Experiment, Requirements Development, Data Analysis, Root Cause Analysis, Fault Tree Analysis, Finite Element Analysis (FEA)  
Software: MS Office, Python, C++, SQL, MATLAB, LabVIEW, AMPL,  $\LaTeX$

## WORK EXPERIENCE

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*Current* | Research Assistant at COLORADO SCHOOL OF MINES, Golden, CO  
• Operations and design optimization of large and complex systems  
• Instrumentation of mining equipment with NI CompactRIO

2012 - 2015 | Systems Engineer at NATIONAL OILWELL VARCO, Houston, TX  
Research and development of artificial intelligence in drilling controls optimization.  
• Developed optimization algorithms for dynamic environment machine learning  
• Design and execute quality assurance, laboratory, factory acceptance, and field tests  
• 25% rotational work on-site during drilling operations  
• High density data analysis  
• Brokered inter-company Non-Disclosure Agreement

SUMMER 2011 | Summer Intern at NATIONAL OILWELL VARCO, Houston, TX

## EDUCATION

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AUGUST 2017 | Master of Science MECHANICAL ENGINEERING, **Colorado School of Mines**  
GPA: 3.64/4.00 | Advisor: Dr. Alexandra NEWMAN  
• Operations Research and Optimization of System Design

May 2012 | Bachelors of Science PETROLEUM ENGINEERING, **Colorado School of Mines**  
Advisor: Dr. Alfred EUSTES  
• Designed and operated underground coring experiments at the Edgar Mine.

## PROFESSIONAL SOCIETY MEMBERSHIP

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American Society of Mechanical Engineers  
American Institute of Aeronautics and Astronautics  
Prognostics Health Management Society

## TRAINING AND CERTIFICATIONS

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Engineering in Training (April 2012)  
Private Pilot Certificate