

Erika Fretheim

1577 E Charouleau Place, Oro Valley AZ 85737
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SUMMARY OF QUALIFICATIONS

Engineering professional with diverse experience in mechanical design of heavy equipment for mining and construction industries including trenchless technologies, drilling and tunneling equipment. Extensive international travel related to new CAD/CAM system implementations, trade shows presentations, engineering support to manufacturers, and client relations.

- Product Development
- 3D Modelling and Design Solutions
- CAD Management
- Project and product management
- Research and Development
- Quality Improvement
- Sales and Marketing
- Training and Development

PROFESSIONAL EXPERIENCE

- eKvist, Inc.** Oro Valley, AZ **2004-Current**
Engineering consulting services
Owner
- Product development and design
 - Providing custom SolidWorks training and mentoring services
 - Drafting and modeling services using SolidWorks
 - Certified SolidWorks Professional
- Digital Dimensions, LLC,** Tucson, AZ **2002-2004**
Value Added Reseller of SolidWorks 3D Modeling software
Application Engineer, Certified SolidWorks Instructor and Support Technician
- Providing training courses on the SolidWorks software
 - Technical Support of SolidWorks
 - Technical sales support of SolidWorks
- Driltech Mission, LLC a Sandvik Company, Alachua, FL** **2001-2002**
Manufacturer of rotary drill rigs and down-the-hole drilling products
Product Manager, DTH Bits and Overburden
- Forecasting and sales analysis
 - Work with subcontractors on delivery and price issues
 - Plan for sales development
 - Engineering and Warranty support
 - Profitability analysis of the products
 - Develop product plans for new products
- Driltech Mission, LLC a Sandvik Company, Alachua, FL** **1999-2001**
Manufacturer of rotary drill rigs and down-the-hole drilling products
R&D Supervisor, DTH Tools
- Managed engineering and development of DTH bits and hammers with a total annual sale of \$25 million.
- Development of new 3D parametric models for drill bit design using Unigraphics reducing design cycle by 60%.
 - Improved communication and product development process by utilizing company Intranet and database technology resulting in an effective and efficient documented product management process.
 - Integrating new 3D models into manufacturing for total quality improvement.
 - Designed numerous new drill bits, resulting in noticeable improved performance and longer-life of bits compared to existing products.
 - Coordinating engineering/manufacturing in United States, Mexico and Sweden.

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Bolder Underground, Inc., Boulder, CO

1997 - 1999

Manufacturer of a small-horizontal directional drill

Vice President, Sales & Marketing

Marketed new micro-horizontal directional drill and provided improvement modifications.

- Demonstrated equipment and provided training for distributors.
- Guest speaker at numerous technical seminars presenting on trenchless technologies.
- Conducted vendor sourcing through intensive research on suppliers resulting in 47% cost reduction for drill steel, and improved quality, reliability and service level.

Excavation Engineering and Earth Mechanics Institute, CSM, Golden, CO

1995–1997

Research in the field of excavation technology for mining and underground construction

Research Associate in Mining Engineering

Managed research projects in the field of Mechanical Excavation. Mentored mining engineering graduate students.

- Performed cutter and cutter head evaluation for performance prediction, project costing, and design optimisation of mechanical rock excavation tools for all types of mechanical excavators.
- Developed new drill bit that improved performance by over 10%.
- Guest speaker at numerous conferences and seminars on various subjects including, mechanical mining, mechanical tunnelling and microtunneling.

Miscellaneous Experience

1988-1995

- Research Assistant performing full-scale cutting and rock property tests to develop data used for performance predictions of mechanical excavation equipment.
- Project Engineer performing maintenance study on mining trucks.
- Mining Engineer and Mine Planning Manager responsible for daily planning of mine production.
- Practical training in mining engineering at Aitik, Boliden Mineral's large-scale open pit copper mine.
- Civil Engineer in soil mechanics conducting geo-technical investigations and producing reports and drawings.
- Teacher in mathematics and natural sciences at senior high school level.

COMPUTER SKILLS

- Twenty years experience in using PC-based systems combined with working knowledge of multiple business software packages. Experience includes Microsoft Office programs (Word, Excel, PowerPoint, Access, FrontPage), Unigraphics, UG Manager and IMAN, SolidWorks, PDM Works, Conisio (PDM Software), AutoCad, and Datamine for mine planning.
- Windows operating systems and previous experience with Unix.

EDUCATION AND PROFESSIONAL DEVELOPMENT

MS Mining Engineering, 1995

Colorado School of Mines, Golden, CO

Full scholarship, research assistantship. Awarded grant from mining organization.

Graduated with a GPA of 3.9.

BS Mining Engineering, 1992

Luleå University of Technology, Luleå, Sweden

Thesis selected as the best mining thesis for the 92/93 academic year by the Swedish Mining Association.

Unigraphics Training

Successfully attended EDS certified courses in Practical Applications of Unigraphics, Design Applications, Associative Parametric Design, Drafting, Grip and Mill Manufacturing Process.

SolidWorks Training

Attended SolidWorks Essentials and Advanced training during the fall of 2002. Worked as a teacher providing certified SolidWorks training 2002-2004.

PERSONAL

US citizen. Fluent in Swedish and English, conversational in German.

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PUBLICATIONS & PRESENTATIONS

Mohammad Najafi, P.E., Erika Fretheim, M.Sc. **"Development of Tru-Grade, A New Micro-HDD Machine"** No-Dig Engineering, 4th Quarter, 1997

Erika Rönnkvist (Fretheim), M.Sc. Thesis **"Development of a Mini-disc Equipped Drum Cutting Concept for a Hard Rock Mechanical Excavator"**, Colorado School of Mines, Department of Mining Engineering, Golden, CO, T-4572, April 1995.

Friant, J.E., Ozdemir, L., Rönnkvist (Fretheim), E., 1994, **"Mini-Cutter Technology - The Answer to a Truly Mobile Excavator"**, Proceedings of North American Tunneling '94 Conference and Exhibition (NAT '94), Denver, Colorado, June 6-9.

Rönnkvist (Fretheim), E., Friant J.E., Ozdemir, L., 1994, **"Development of a Mechanical Alcove Excavator for the Yucca Mountain Exploratory Study Facility"**, Proc. International High Level Radioactive Waste Management Conference (HLRWM), Las Vegas, Nevada, May 22-26.

Rönnkvist (Fretheim) E., Ozdemir, L., Friant, J.E., 1994, **"Testing and Performance Evaluation of a 32 inch Cutterhead using Mini Disc Cutters"**, Proc. of Institute of Shaft Drilling Technology (ISDT) annual technical meeting, Las Vegas, Nevada, April 18-21.

Friant, J.E., Rönnkvist (Fretheim), E., Ozdemir, L., 1993, **"Alcove Excavator for the Yucca Mountain Experimental Study Facility"**, Report prepared for RSN contract # SC-YM-93-159, EMI, CSM.

Bo Forsman, Erika Rönnkvist (Fretheim) and Nick Vagenas: **"Truck Dispatch Computer Simulation in Aitik Open Pit Mine"**, International Journal of Surface Mining and Reclamation, 1996.

Bo Forsman, Erika Rönnkvist (Fretheim) and Nick Vagenas: **"Truck Dispatch Computer Simulation in Aitik Open Pit Mine"**. Proc. Conference Computer Simulation Techniques, Italy, 1992.

Erika Rönnkvist (Fretheim), Technical Report **"Underhållsanalys på Truckmodell Caterpillar 789, Aitikgruvan"** (Maintenance Study on Truck Model Caterpillar 789, Aitik Mine), Luleå University of Technology, 1992 (Only published in Swedish).

Erika Rönnkvist (Fretheim), M.Sc. Thesis **"Computer Simulation of Truck Dispatching and Maintenance Control of the Transport System in Aitik Open Pit Mine"**, Luleå University of Technology, 1992, ISSN 0349-6023, (Only published in Swedish). Selected as best Mining Thesis during 92/93 by The Swedish Mining Association.