DOUGLAS S. PRAIRIE, P.E.

4413 S River Oaks Cir Sioux Falls, SD 57105 (605) 310-8802 douglasprairie@yahoo.com PROFESSIONAL ENGINEER Registered under number 13315 in the State of Idaho **MISSION STATEMENT** Provide innovative business and product development solutions SKILLS SUMMARY **Product Management** Sales Management **Engineering Management Contract Negotiations Business Development** Design for Manufacturing Precision Agriculture **P&ID** Development Fluid Power Systems **Project Management** Intellectual Property Stress & Failure Analysis **Product Development** Development Feasibility Cost Studies Machine Design Bio-fuels Experience GD&T Lean Manufacturing **Industrial Equipment Engine Emission Regs** Agricultural Equipment Supplier Relationships Off-Highway Equipment

EXPERIENCE

POET Research, Sioux Falls, SD www.poet.com; June 2015 to June 2016 Mechanical Research Manager for POET's Research and Innovation Group

POET Research was responsible for the development and support of novel technologies related to corn ethanol, cellulosic ethanol, and corn derived industrial products and processes.

Raven Industries, Sioux Falls, SD www.ravenprecision.com; November 2014 to March 2015 North American Sales Manager of Precision Agriculture Technology

- Sales Leadership for a team of 15 account managers spread across the United States and Canada
- Sales Forecasting and Analysis for hundreds of accounts totaling over \$60 million in annual sales
- Contract Negotiations with OEM and after-market distribution partners
- Certified with Carew International Dimensions of Professional Selling® Program

Raven Industries, Sioux Falls, SD www.ravenprecision.com; March 2010 to November 2014 Product Manager of Planting, Seeding and Harvest Control Product Lines

- Led development and launch of OmniRow Planter Controls, OmniSeed Air Seeder Controls, UHarvest Grain Cart Monitoring System, and SmartYield Pro Yield Monitoring System
- Business Development of an industry leading Multi-Hybrid planter control system
- Team Lead for Raven SmartQuote Guided Sales and Quotation Tool
- Grew product line sales from a few thousand \$ into multi-million \$ per year business segments
- Recipient of four ASABE AE 50 Product Innovation Awards
- Member of Raven Leadership Council

Prairie West LLC, Sioux Falls, SD; March 2010 to present; Boise, ID; Dec 2007 to March 2010 Freelance Agriculture, Mechanical and Industrial Design Engineer

- Mechanical and Process Design of a micro corn to ethanol production facility
- Structural design and stress analysis of a mobile hydraulic car crushing system
- Industrial design and product development for a consumer products company

Bratney Companies, Boise, ID www.bratney.com; February 2003 to September 2005 Construction/Mechanical Project Engineer of Industrial Processes

Developed and Executed proposals for multiple design-build construction projects Project Managed the construction and startup of a green field alfalfa cleaning and bagging facility

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EXPERIENCE CONTINUED

<u>Multiquip</u>, Boise, ID <u>www.multiquip.com</u>; *Dec 2000 to Feb 2003; Sept 2005 to Dec 2007* Engineering Department Manager for Light Construction Equipment Manufacturer

- Manage a team of 15 engineers, designers, drafters, and technicians tasked with supporting the safety and technical demands of 200+ plus finished goods.
- Manage a \$1.3 million annual budget for engineering product support and product development.
- Coordinate with product managers, manufacturing, quality, purchasing, marketing, and suppliers
- Responsible for designing equipment to latest global safety and homologation standards
- Coordinate intellectual property development with patent attorneys

Case Corporation, Fargo, ND www.cnh.com; October 1996 to July 2000

New Product Development Engineer for Planting and Seeding Division

- Developed SDX 30 and SDX 40 single disc planter programs from conception to production
- Solved design problems with the aid of failure mode effect analysis (FMEA), finite element analysis (FEA), robust design principles, and design for manufacturing and assembly (DFMA)

Ag-Chem Equipment Co., Jackson, MN www.agcocorp.com; May 1996 to September 1996

 Performed and analyzed engine dynamometer tests, hydraulic tests, and other product tests utilizing data acquisition systems

PATENTS

- Inventor on U.S. Patent # 5,915,312 & 6,047,652: Pneumatic Seed Delivery System
- Inventor on U.S. Patent # 6,116,172: *Shank Mounted Row Crop Opener*
- Inventor on U.S. Patent # 6,386,127 6,640,732 & 6,644,223: Disc Opener for a Seed Planter
- Inventor on U.S. Patent # 6,454,019: Ag Implement Down Pressure System
- Inventor on U.S. Patent #7,497,522: Concrete Saw Stay Level Handlebars,
- Patent Pending: Multi-Hybrid Planter Controls and Combine Yield Monitor Systems.

SOFTWARE

SST Summit, SMS, SolidWorks CAD and Simulation, MathCAD, Visio, PDM Works, Pro Engineer, AutoCAD, SAP R/3, AS400, Visual Basic, Working Model, Microsoft Office and Microsoft Project

EDUCATION

BOISE STATE UNIVERSITY (BSU) Boise, ID www.boisestate.edu

Masters of Mechanical Engineering with Business Emphasis

Graduation Date: December 2004 GPA: 3.5/4.0

Project Paper: Design of a Conceptual Biodiesel Production Facility

Applicable Courses: Mechatronics, Advanced Dynamics, Advanced Fluid & Thermal Systems,

Vibrations, Advanced Entrepreneurship, Business Law

SOUTH DAKOTA STATE UNIVERSITY (SDSU), Brookings, SD www.sdstate.edu

BS Agricultural Engineering with Power and Machinery Focus

Graduation Date: May 1997 GPA: 3.6/4.0

ASSOCIATIONS

- Member of FarmHouse Fraternity www.farmhouse.org
- Member of Society of Automotive Engineers <u>www.sae.org</u>
- Member of American Society of Mechanical Engineers www.asme.org
- Member of American Society of Agricultural and Biological Engineers www.asabe.org
- SolidWorks User Group