David A. Headrick

Mechanical Engineer, P.Eng

Education

Bachelor of Applied Science

Post Secondary - Class of 1999

Faculty of Applied Science and Engineering
University of Toronto
Toronto, Ontario

Ontario Secondary School Diploma - O.A.C.

Secondary - Class of 1993

Renfrew Collegiate Institute
Renfrew, Ontario

Work History

Project Engineer & IT Administrator

Sep 2002 - Present

Motion Concepts
Concord, Ontario

- Design mechanisms to meet specifications developed by industry feedback
- Develop products which are cost effective and practical to manufacture
- Produce engineering drawings to be used for prototyping and mass production
- Take part in product validation to ensure that designs are robust and reliable

While working in the medical industry as a project engineer at Motion Concepts for the past decade has allowed me to hone my skills. My previous work experience had me designing parts which would be assembled and used by trained individuals familliar with the industry. The products I have designed in my current position have a wider range of people who must use them. This has required a higher attention to detail so that the installation and operation of the product is both obvious and deterministic.

Applications Project Engineer

Feb 2001 - Sep 2002

Intier Latching Systems (MAGNA)
Concord, Ontario

- Oversee design process of components to meet specifications supplied by customers
- Work with customer to develop product to suit their needs
- Produce engineering drawings to be used for prototyping & mass production
- Implement & troubleshoot product validation testing

While working as Project Engineer in the automotive field, I have had to become familiar with designing parts to be integrated into larger assemblies. This has meant producing designs that conform to customer specifications as well as satisfy internal requirements. Frequent interaction with cross-functional teams was necessary to predict and solve potential problems before they occur. Heavy theoretical analysis and testing was required to validate production designs. Maintaining documentation in order to track changes was a must as well as meeting with the customer to support their launch concerns.

Project Engineer

May 1999 - Feb 2001

Eagle Air Conveying Ltd.
Almonte, Ontario

- Design bulk handling system components
- Troubleshoot existing systems
- Produce engineering drawings to be used for fabrication
- Co-ordinate on-site installation of equipment

Since being promoted to Project Engineer and becoming part of the full time staff, I have had a larger number of responsibilities. Heavy involvement in investigative work pertinent to design as well as assisting in building and testing prototypes has been required. Duties also included estimating various project costs as well as working out project schedules. My input was periodically needed with regards to establishing procedures towards CAD system maintenance and quality assurance.

Technical Skills

- Certified in SolidWorks and also familiar with other CAD/CAE software packages (Autocad, Inventor, Unigraphics, SDRC Ideas, Solid Edge)
- Familiar with Exact Constraint principles and Geometric Dimensioning & Tolerancing methodology
- Very experienced with the Windows environment as well as UNIX/Linux
- Proficient with all of the major word-processing packages (Word, WordPerfect) and spreadsheet programs (Excel, Lotus) as well as presentation packages (PowerPoint, CorelDRAW) and communication bundles (Lotus Notes, Outlook)
- Enjoy challenges and am adept at troubleshooting and solving problems
- Predisposed towards a profession in the mechanical/electrical/computer field
- Get along easily with others and work well individually as well as in a team environment

Distincions & Extracurricular Activities

- *Certified SolidWorks Professional* with additional advanced certifications in Sheet Metal, Surfacing, Mold Tools, and Drawing Tools
- Licensed with *Professional Engineers Ontario* since 2010
- Enjoy programming in various languages in my free time (PHP, Squirrel, Python, C/C++)
- Attended *Base Latch Training 2002* conducted by Franco G. Ottino
- Attended *Problem Solving* training hosted by *Philip Crosby Associates II* in 2001
- Associate member of the *American Society of Mechanical Engineers* since 1999 (student member since 1996)
- My thesis partners and I were nominated for best thesis award in 1999
- Attended three courses on pneumatic conveying at the *Powder and Bulk Engineering Technical Conference* lead by Paul Solt held in Minneapolis in 1998
- Member of the Formula SAE design team for the faculty of Engineering in 1998
- Was one of three finalists for the *Wallace G. Chalmers Award* for design at the University of Toronto in 1997
- Placed 2nd in Region V ASME design contest held in Cincinnati in 1996
- Received the *Haley Industries Scholarship* in 1993
- Graduated as an Ontario Scholar
- Placed in the top 25% across Canada in the *Descartes Mathematics Contest* in 1993

Personal Goals

I enjoy working in a progressive position with opportunities for increased responsibility. I believe the skills and experience I have gained while working for my various past employers can be easily applied to other areas without difficulty. I feel it is important to be employed in a field that stimulates my various engineering skills as well as one that makes use of my mechanical aptitude. I have proven to be a valuable asset to my employers in the past and endeavor to do the same in the future.

References available upon request.

resume@davidheadrick.com (416) 919-6324