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# **EDUCATION**

Oregon State University, Corvallis, Oregon, USA

3.86 GPA

September 2007 to Present

Masters of Science in Mechanical Engineering – Design Methodology

**Oregon State University**, Corvallis, Oregon, USA

Cum Laude

September 2001 to June 2007

Honors B.S. Mechanical Engineering • Honors B.A. International Studies • Business Administration Minor

Universität Karlsruhe, Karlsruhe, Germany

June 2005 to September 2005

Research in humanoid robotics and related systems

Université du 7 Novembre à Carthage, Tunis, Tunisia

September 2004 to June 2005

Coursework in Arabic language, Tunisian culture, women's studies, and environmental science

#### **RESEARCH EXPERIENCE - DOMESTIC**

# National Center for Accessible Transportation – Oregon State University – Fall 2007 to Present

Graduate Research Assistant

- Conduct research on increasing safety and usability of airline aisle chairs for mobility-impaired passengers
- Write and review papers for publication in journals and conference proceedings
- Research mechanical design methodology and new ways of incorporating cultural considerations into the process

# Oregon State University Research Diving Program – Oregon State University, Corvallis, Oregon May 2008 to Present Research Diver

- Dive on underwater structures to count and/or capture marine life, perform construction and maintenance on man-made structures, and collect samples in support of ongoing underwater research
- Support general ship-board operations and research while at sea and in port

## RESEARCH EXPERIENCE - INTERNATIONAL

# Universität Karlsruhe Institut für Produktentwicklung, Karlsruhe, Germany

July to September 2005

Deutscher Akademischer Austausch Deinst - Research Internships in Science and Engineering (DAAD-RISE) Research Fellow

- Designed 6 DOF humanoid robotic shoulders
- Translated and proofread technical papers and posters from German to English
- Worked as part of German university research team using technical German and English

# TEACHING EXPERIENCE

Introduction to Design – Oregon State University – Graduate Teaching Assistant – Fall 2008

- Co-teaching two recitation/lab sections of 25-30 junior-level students with a fellow graduate student
- Anticipating teaching a lecture during term under supervision of the course professors, Dr. Irem Tumer and Dr. Dave Ullman

# Introduction to Mechanical Engineering – ME 101 - Oregon State University – Head Graduate Teaching Assistant – Fall 2007

- Created weekly recitation lesson plans for freshman course with guidance from course professor, Dr. Joe Zaworski
- Graded 150 freshman students' homework, handled grading disputes, and communicating grades to students
- Coordinated and monitored nine undergraduate teaching assistants who directly taught the recitations

#### Introduction to Mechanical Engineering – ME 101 - Oregon State University – Undergraduate Teaching Assistant – Fall 2006

- Taught three two-hour recitations under the guidance of the course professor, Dr. Joe Zaworski
- Assisted students with homework and in-class exercises
- Graded homework and reported grades to course professor

#### CONFERENCE PROCEEDINGS

D. Van Bossuyt, B. Gibson, U. Wörz, and J. Zaworski. **The Integration of Affective Design into QFD** 2008 ASME International Design Theory and Methodology Conference, IDETC/DET2008

# FORTHCOMING JOURNAL ARTICLES

D. Van Bossuyt, B. Gibson, and J. Zaworski. **Integrating Cultural Dimensions into the House of Quality (HoQ)** The International Journal of Design Principles and Practices, Expected Winter 2009

## CONFERENCE POSTERS

- D. Van Bossuyt, K. Wilson, C. Moen, R. Hess, E. Miles, K. Seniow. When to Quit: What to Consider Before Abandoning a Project 2007 EWB International Conference
- C. Moen, K. Wilson, K. Seniow, D. Van Bossuyt, R. Hess, E. Miles. Water System 2007 EWB International Conference

#### CONFERENCE PRESENTATIONS

- D. Van Bossuyt, B. Gibson, U. Wörz, and J. Zaworski. **The Integration of Affective Design into QFD** 2008 ASME International Design Theory and Methodology Conference, IDECT/DET2008
- D. Van Bossuyt. Mercury Rising: Health Consequences of Mercury Exposure in the Engineering Profession 2007 ASME District D Student Professional Development Conference

## CONFERENCE PANELS

Chapter Management Techniques – 2007 EWB West Coast Conference

#### UNDERGRADUATE THESES

- D. Van Bossuyt. The Eyes of Tunis Oregon State University Honors College Thesis 2007
- D. Van Bossuyt. International Engineering Interns in their Own Words: Past Interns Share their Stories and their Wisdom with the Future Oregon State University International Degree Program Thesis 2007

#### MAGAZINE PUBLICATIONS

- D. Van Bossuyt, D. Shapiro. From the Editors in University Honors College Chronicle Fall 2007
- D. Van Bossuyt. The Drunken Ninja of Thala in University Honors College Chronicle Fall 2007
- D. Van Bossuyt. Uncle Douglas does Dinner in University Honors College Chronicle Fall 2007
- K. Lyon, D. Van Bossuyt. The Cherry Play in University Honors College Chronicle Fall 2007
- J. Moser, D. Van Bossuyt. It's Funny Where the Time Goes: The True Story of how we Lost this Issue in *University Honors College Chronicle* Spring 2006
- D. Van Bossuyt. Changing the Chronicle's Old Guard in University Honors College Chronicle Spring 2006

- J. Moser, D. Van Bossuyt. From Two Editors: Behind the Scenes at The Chronicle in *University Honors College Chronicle* Winter 2006
- D. Van Bossuyt. The Night Bus to Tunis in *University Honors College Chronicle* Winter 2006
- D. Van Bossuyt. Tunisia: Not Just Camels But they Have that too! in University Honors College Chronicle Spring 2005
- D. Van Bossuyt. I am the Woodsman. I am the Businessman. Each of us Imprisoned in *University Honors College Chronicle* Spring 2004
- D. Van Bossuyt, S. Knotts. Jack in The Nuts and Volts of Amateur Robotics August 2002 Supplemental Issue

#### **EDITORIAL ROLES**

Editor-in-Chief of University Honors College Chronicle 2006-2007

Co-Editor of University Honors College Chronicle 2005-2006

#### PROFESSIONAL EXPERIENCE - INTERNATIONAL

#### Centre d'études maghrébines à Tunis, Tunis, Tunisia

February to June 2005

International Education, Experience, Employment (IE3) Intern

- Helped organize and provide logistics for academic conferences
- Developed part of and ran the first U.S. Department of State Critical Language Scholarship program
- Served as interpreter and escort for visiting academics

# Marbrerie Tunis Carthage, Tunis, Tunisia

January to June 2005

Maintenance Engineering Intern

- Investigated automation of marble block cutting equipment to improve efficiency and safety
- Researched efficiency improvements of numeric marble milling machines
- Interacted directly with Tunisian workforce in both Modern Standard and Tunisian dialect Arabic

# PROFESSIONAL EXPERIENCE - DOMESTIC

# Rosendin Electric Inc, Hillsboro, Oregon

June 2007 to September 2007

Construction Engineering Management Intern

- Supported master scheduler using Prima Vera on a multi-billion dollar construction project
- · Worked with project managers to obtain needed materials, schedule manpower, and inspect subcontractor work
- Assisted securing permits and inspections for various commercial and industrial construction projects

## Flextronics International, Corvallis, Oregon

December 2006 to March 2007

Hewlett Packard test tool construction group, Intern – Build Supervisor

- Led a team of three assemblers constructing ten test tools for multiple international Hewlett Packard sites
- Created assembly instructions and trained assemblers

# Electro Scientific Industries, Beaverton, Oregon

April to September 2006

Electronic Component Solutions group, 35xx Project, Multiple Engineering Cooperative Program (MECOP) Intern

- Researched, designed, and implemented pneumatic (CDA & VAC) subsystems for new product
- Set customer site requirements for new product
- Selected, qualified, and integrated many electrical power distribution components

## Freightliner LLC (a DaimlerChrysler company) Portland, Oregon, USA

April to September 2004

Manufacturing Engineering, Test and Technology Group, Multiple Engineering Cooperative Program (MECOP) Intern

- Designed, built, tested, and deployed several production electronic equipment test machines
- Designed and deployed several tools to production lines across the Freightliner North American factories
- Wrote Programmable Logic Controller (PLC) code for test equipment

#### Planar Systems, Inc. Beaverton, Oregon

June to September 2003 & 2002

American Electronics Association (AeA) Manufacturing Engineering Intern

- Designed and implemented tooling and fixtures in support of the LCD and EL manufacturing process
- Created and revised work instructions supporting the manufacture of LCD and EL products
- Conducted R&D work on ultra-bright transflective LCD displays

# Portland General Electric, Salem, Oregon

June to September 2001

Groundsman and Traffic Safety Technician

- Supported aerial operations from the ground by building up cross-arms, transformers, and other activities
- Controlled traffic flow at worksites to ensure the safety of power crews and general public
- Worked in any condition, day or night, in support of outage repair to keep the grid running

#### TECHNICAL VOLUNTEER EXPERIENCE

# **Engineers Without Borders – Oregon State Chapter**, Corvallis, Oregon

September 2005 to Present

Past President (2006-2008), Member

- Led 50 active and 200 interested student members (100% volunteer-based)
- Group is currently working on a water treatment and distribution project in El Salvador
- Organized and ran weekly meetings, workshops, seminars, and other activities

# Center for Writing and Learning -Oregon State University, Corvallis, Oregon

October 2005 to Present

**Technical Writing Assistant** 

- Work with domestic and international students to improve their technical writing abilities
- Worked with multiple PhD candidates to proof their dissertations, research proposals, and funding requests
- Cross-train writing assistants from other disciplines to better serve the technical writing community

## **Engineers Without Borders – West Coast Region**

December 2007 to Present

State of Oregon Representative to the Board

- Represent Oregon on board of directors for the West Coast region of Engineers Without Borders
- Hold regular conference calls with all Oregon chapter presidents and the West Coast board
- Facilitate information sharing and exchange between chapters, regional governance, and national organization

# Oregon State University PADI SCUBA Program – Oregon State University, Corvallis, Oregon September 2007 to Present Diversiter

- Support and help instructors supervise beginning and advanced dive students
- Work as part of a team to ensure safety of dive operation, satisfaction of students, and enjoyment of all participants
- Help beginning divers one-on-one to overcome obstacles to their success as SCUBA divers

# University Honors College Chronicle Student Magazine, Corvallis, Oregon

September 2003 to June 2007

Editor in Chief, Contributing Author

- Published two magazines per year to showcase Honors College student work and talent
- Solicited, copy edited, chose for publication, and published all-student submissions
- Interacted with Honors College staff to secure support and funding for publication

# NHS Robotics Team, Newberg, Oregon

September 1997 to June 2001

Team Leader, Designer, Machinist

- Worked with and lead a team of 15 people designing robots to compete in international design contests
- Designed robots in the following categories: humanoid, animal mimicry, bomb disposal, gladiator combat
- Won several major international design contests (see Honors and Awards section of this document)

#### SOFTWARE PACKAGES & PROGRAMMING LANGUAGES

- SolidWorks
- Pro-E
- AutoCAD
- MasterCAM
- Delmia
- I-Deas
- Lab View

- Microsoft Word, Access, Excel, PowerPoint, Publisher, Visio
- Square-D PLC programming
- Adobe Photoshop
- Allen-Bradley PLC programming

- MATLAB
- Sketch-It
- Autodesk Inventor
- HTML
- Prima Vera
- CATIA
- LaTeX

#### PROFESSIONAL MEMBERSHIPS

- Engineers Without Borders
- American Society of Mechanical Engineers
- Pi Tau Sigma Omega Chapter

- Professional Association of Diving Instructors (PADI)
- American Academy for Underwater Science Standards

## HONORS AND AWARDS

- Named one of the 25 most influential undergraduates at Oregon State University
- Waldo-Cummings Outstanding Senior Award
- Graduated Cum Laude
- Mortarboard Senior Honor Society
- Presidential Scholar
- Honor Roll ten times
- Opportunity Plus program

- Society of Manufacturing Engineers International Design Challenge Judge's Choice Award: 2001 & 1999
- American Society of Mechanical Engineers: International Design Contest 2004 (5<sup>th</sup> Place), Region VIII Design Contest Winner 2004
- Glen Struble Memorial Scholar
- Student Alumni Association Council of Directors

# INTERNATIONAL EXPERIENCE

- CENTRAL AMERICA: Five weeks volunteering with Engineers Without Borders (2007)
- GERMANY: Three-month academic program (2005)
- TUNISIA: Nine-month academic program (2004/5)
- EGYPT: Three weeks abroad (2000)
- GERMANY: One month academic exchange (1998)
- MOROCCO, BELGIUM, UNITED KINGDOM: five weeks abroad (1998)
- JAPAN: Two week academic exchange (1997)
- EUROPE: Five weeks abroad (1994)

## **EXTRACURRICULAR ACTIVITIES & HOBBIES**

- Oregon State Cycling Club
- Chehalem Symphony at George Fox University
- Oregon State Symphony
- Backpacking and hiking
- Flying and aviation

- Mortarboard past Communications Chair
- Tunisia Alumni Society
- SCUBA diving
- Fly fishing
- Oregon State International Programs Office ambassador