
14700 NE Spring Creek Lane
Newberg OR 97132

204 Rogers Hall
Oregon State University
Corvallis, OR 97330

Phone: 503.349.1772
Douglas.VanBossuyt@gmail.com
<http://www.douglasvanbossuyt.com>

EDUCATION

- Oregon State University**, Corvallis, Oregon, USA 3.92 GPA January 2009 to Present
- In Progress – Doctor of Philosophy in Mechanical Engineering – Risk and Reliability Engineering in Complex Systems
- Oregon State University**, Corvallis, Oregon, USA Suma Cum Laude September 2007 to Dec. 2008
- 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

- Complex Engineered Systems Design Laboratory** – Oregon State University – January 2009 to Present
Graduate Research Assistant
- Conduct research on risk and reliability engineering, and complex system design
 - Write and review papers for publication in journals and conference proceedings
 - Research new methodologies for integrating risk, reliability, robustness, and uncertainty into trade studies
- National Center for Accessible Transportation** – Oregon State University – Fall 2007 to January 2009
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 Dienst - 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

- Mechanical Component Design** – Oregon State University – Graduate Teaching Assistant – Winter 2009
- Created and taught weekly recitation/lab lesson plans for 110 junior-level students with guidance from Dr. Irem Tumer
 - Managed team of five graduate students who assisted in class activities and graded course material
 - Guest lecturer in lecture portion of the course on multiple occasions

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

- Co-taught two recitation/lab sections of 25-30 junior-level students under Dr. Irem Tumer and Dr. Dave Ullman
- Team graded 110 student homework assignments on a weekly basis
- Mentored ASME Student Design Challenge teams to prepare them for regional competition

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

CONFERENCE PROCEEDINGS IN PROGRESS

D. Van Bossuyt, B. Gibson, and J. Zaworski. **Mechanical Engineering Design Across Cultures: A Method of Designing for Cultures** 2009 ASME International Mechanical Engineering Congress and Exposition, IMECE2009 – Abstract Accepted

D. Van Bossuyt, and I. Y. Tumer. **Risk, Reliability, Robustness, and Uncertainty Perception and Valuation in Complex System Design** 2009 ASME International Mechanical Engineering Congress and Exposition, IMECE2009 – Abstract Accepted

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 Engineers Without Borders (EWB) West Coast Conference

GRADUATE THESIS

D. Van Bossuyt. **Mechanical Engineering Design Across Cultures: A Method of Designing for Cultures** Oregon State University School of Mechanical, Industrial, and Manufacturing Engineering Masters of Science Thesis 2009

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

TENURE PROMOTION COMMITTEES

Kagan Tumer – Oregon State University – School of Mechanical, Industrial, and Manufacturing Engineering – Winter 2009

Kevin Boston – Oregon State University – Department of Forest Engineering, Resources, and Management – Fall 2008

TECHNICAL CONFERENCE PEER REVIEWS

ASME International Design Engineering Technical Conference (IDECT) – Design Theory and Methodology (DTM) - 2009

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 transfective 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 water treatment and distribution projects in El Salvador and Kenya
- 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
Divemaster

- 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)

OTHER VOLUNTEER SERVICE

Student Alumni Association June 2008 to Present
Board of Directors Member

- Coordinate student spirit and tradition events such as Homecoming and Senior Sendoff
- Fundraise for various spirit and professional development student on-campus events
- Serve on Alumni Networking Committee and Business Partnership Committee

Associated Students of Oregon State University – Student Senate September 2008 to Present
Graduate Student Senator

- Co-sponsored four pieces of legislation directly affecting the students of Oregon State University
- Serve on Student Government Committee where a new constitution was developed and new bylaws are created
- Work to further graduate student interests as part of the Graduate Student Caucus

SOFTWARE PACKAGES & PROGRAMMING LANGUAGES

- SolidWorks
- Pro-E
- AutoCAD
- MasterCAM
- Delmia
- I-Deas
- Lab View
- WordPress
- 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
- Phoenix Integration ModelCenter
- Engineering Equation Solver

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 (5th 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
- Motorcycling