Brent Robert Shambaugh

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EDUCATION

MS in Chemical Engineering, University of Oklahoma, Norman, OK BS in Chemical Engineering, University of Oklahoma, Norman, OK

Nationality: US Languages: English (native), basic German

PRESENT ACTIVITY

Basic Machining – Moore Norman Technology Center ,Ham Radio Technician License Studying C++, Computational Fluid Dynamics with OpenFoam, Tripoli Rocketry Association, L1

EMPLOYMENT

Oct 2017- Mar 2018

Researcher/Developer for Research Studios Austria, Vienna, Austria

- Developed Unit Tests for the Web of Needs Protocol
- Pair programmed and modified code for a large number of low level functions
- Wrote code using Jena, Java, and SPARQL with Eclipse and IntelliJ

Nov 2015 – Dec 2016

Semantic Web Consultant for Integrated Space Analytics, Douglas, MA, USA

- Expressed Drupal 7 data in RDF with ARC2 and Marmotta backends.
- Visualized RDF data with LodLive
- Used Views to build pages that linked the LodLive visualizations

Jul 2015 – Nov 2015

Consultant for Nordson Adhesive Dispensing Systems, USA - Developed a complex computer simulation of a commercial unit for polymer fiber production

Jan 2013 – Oct 2013

Adjunct Professor, Oklahoma City Community College, Oklahoma, USA - Taught Introductory Chemistry Lab

SOFTWARE SKILLS

Microsoft Office (Excel, Word, PowerPoint), SPARQL, GNU/Linux, Drupal7, Apache Marmotta, PHP, SQL, RDF, HTTP/REST, Fortran, g95, PGPLOT, SigmaPlot, GAMS, MathCad, SPSS, Pro-II, FTP, ProAnalyst, NuGenTransform, XML, XLST, Gimp, Flash, HTML, GNU/Linux, Python, JavaScript, RDFLib, jQuery, N3.js, D3.js, RDF-Ext, LaTeX, , Apache Jena, Java Eclipse, Docker

LEADERSHIP SKILLS

Cinematic Artists of Norman Executive Committee, Treasurer (1 year) Founder and Organizer of Code Norman and Norman Tech Talks (2 years)

EXPERIMENTAL SKILLS

- Polymer Extrusion and Processing, Photography, Infrared Thermography, High-Speed Photography (150,000 frames/second), Microscopy, Birefringence

RESEARCH EXPERIENCE

OU Center for Polymer and Fiber Research (May 2005 – Aug. 2006, May 2007 – Dec. 2012) Graduate Student / Laboratory Associate / Undergraduate Researcher

• *Team Leader* - directed students in the operation of polymer processing equipment, infrared camera, and high-speed motion camera

- Modified and worked with polymer processing models written in FORTRAN
- Specified and ordered equipment for repair and upgrade of equipment worth \$500,000
- Operated complex melt blowing, spunbonding, and melt spinning equipment.
- Gave Oral Presentations at (a) International 2009 INDA Nonwovens Conference (Denver, CO), (b) 2012 International Gas Processing Conference, (c) two industrial consortium meetings at University of Oklahoma.
- Wrote polymer processing manual using Flash MX and Microsoft Word.
- Co-authored three papers in Industrial & Engineering Chemistry Research:
- Shambaugh, B. et al., Modifying Air Fields to Improve Melt Blowing, I & EC Research (2012)
- Shambaugh, B. et al., Next-Generation Modeling of Melt Blowing, I & EC Research (2011)
- Beard, J. et al., On-line Measurement of Fiber Motion during Melt-Blowing, I & EC Research (2007)