

John MacDuffie Woodburn

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Objective: A full-time position in user experience, interactive, and/or service design that draws on my unique background in the medical field, ethnographic research skills, and project management abilities.

Education

University of the Arts

M.S. Industrial Design Philadelphia, PA May 2011

- 2011 Presidential Graduate Award
- Recipient of 2010 Corzo Center Incubator Grant for Net Dialog Project

University of Pennsylvania

M.S. Mechanical Engineering Philadelphia, PA August 2007

- Concentration in Biomechanics, GPA of 3.8
- Independent Studies
 - Designed a passive and user-friendly hand orthotic for patients who suffer from hemiplegia of the hands
 - Designed a micro torsion device for the McKay Orthopedic Institute at the University of Pennsylvania

Villanova University

B.S. Mathematics and B.S. Mechanical Engineering Villanova, PA May 2005

- Minor concentration in Irish Studies; Leadership Training Certificate
- Senior Design/Thesis: created a passive two-dimensional haptic device that could be utilized for developing robotic treatment and training solutions for medical applications

Experience

Design Consultant July 2011 – Current

- Fathom (gofathom.com)
 - Lead Designer/Researcher for a healthcare project
- Information and interactive design
- Concept development and evaluation
- Visual storytelling
- Design and ethnographic research

Open Space Planning Intern

Department of City Planning – Pittsburgh, PA May 2011 – September 2011

- Contributed to the first comprehensive plan for the city of Pittsburgh; was responsible for designing concepts and visual information for the Open Space section of the comprehensive plan.
- Conducted research and comparative analysis, actively participated in meetings with the Senior Planner and consultants, and created materials for public outreach presentations.
- Developed and implemented social media strategies, primarily using Facebook, to encourage the Planning Commission's and the City of Pittsburgh Facebook fans to voice their stories and memories of Pittsburgh's Open Spaces.

Motion Designer

University of Pennsylvania Law School – Philadelphia, PA February 2011 – May 2011

- Freelance motion graphics designer for Penn Law School student documentaries. Assisted the students in creating professional quality films, some of which will be submitted to film festivals.

Manager, Industrial Design Machine Shop

University of the Arts – Philadelphia, PA August 2009 – May 2011

- Helped students design and fabricate projects using a wide range of processes and materials

Founder and Director

Pedal Cooperative – Philadelphia, PA September 2007 – May 2010

- Founder and Director of an award-winning, worker-run organization that provides environmentally-friendly recycling and composting services to businesses in Philadelphia; now serving 80 businesses, including Razorfish, Yards Brewing Company, Wharton Business School at University of Pennsylvania, Kelly Writing House at University of Pennsylvania, Trader Joe's, and WRT design. The Pedal Co-Op's mission is to diminish the caustic environmental impact that is threaded into everyday processes such as waste collection and disposal.

- Designed the first fully functional Pedal Co-Op bicycle trailer and compost machine

Apprentice

Bilenky Cycle Works – Philadelphia, PA

May 2008 – May 2009

- Interned in a custom hand-built bicycle shop; fabricated and brazed custom bicycle frames and enhanced my craftsmanship skills

Research Engineer

University of Pennsylvania – Philadelphia, PA

June 2005 – December 2008

- Research Assistant in the Metabolic Magnetic Resonance Research and Computing Center: helped develop Hyperpolarized ³Helium and ¹³Carbon MRI lung studies and sinus studies; Lead Investigator on the flow pattern of gas in the sinuses
- Designed a high-precision multiple-gas ventilator for use in Hyperpolarized Gas MRI studies that were not previously possible
- Designed a human gas delivery device currently used at the Hospital of the University of Pennsylvania, where it is used in MRI lung studies and has become an integral component in diagnosing the onset of emphysema
- Utilized MathCAD, MATLAB, and COMSOL for analyzing gas flow patterns in the sinuses and lungs to improve contemporary medical techniques

Intern

ALA Architecture – Rye, NY

May 2000 – September 2000

- Created prototype models under the guidance of the lead Architect and formatted the AutoCAD drawings produced for review

Awards and Recognition

- 2011 Presidential Graduate Award for the MID Department at University of the Arts
- Recipient of 2010 Corzo Center Incubator Grant for Net Dialog Project
- Recipient of the Samuel Fels grant, Philly Car Share Community Improvement Grant, and Philadelphia Hero Award
- Pedal Cooperative nominated for the Philadelphia 100 (100 fasted growing companies in Greater Philadelphia region)
- Pedal Cooperative won Best of the City from Comcast in 2009

Teaching

- Teaching assistant for Slavko Milekic: Psychology of Human/Computer Interaction (undergraduate) and Art and Inclusionary Education (graduate) at University of the Arts
- Teaching assistant for Rama Chorpash: ID Junior Studio: Utility Cargo Cycle at University of the Arts
- Designed and taught a graduate course entitled Mechanics of Human Motion at University of Pennsylvania

Skills

- Design Thinking, Human-Centered Research, Ethnographic Research, Interaction Design, Information Architecture, Data Visualization, Modeling, Architectural Drawing, and Product Design
- Develop and implement social media strategies
- Proficient in the following programs: Adobe Creative Suite, ANSYS, AutoCAD, Inventor, SolidWorks, Rhino, Endnote, MATLAB, MathCAD, Microsoft Office, Femlab, COMSOL, HTML, CSS, and LabVIEW
- Certified Machinist at University of Pennsylvania (Mechanical Engineering and the Physics Departments) and at University of the Arts
- Proficient in operating Clinical and Small Animal Magnetic Resonance Imaging Scanners, and Helium-3 and Carbon-13 Polarizers
- Scientific, Journal, and Grant Writing

Selected Exhibitions

Tech Test Exhibit – Tech Museum, San Jose CA “Pixel” – Interactive Project	November 2011
Two Minute Film Festival – Carnegie Museum of Art, Pittsburgh, PA “After 57 Agonizing Years...” – Short Film	July 2011
An Exchange with Sol Lewitt – Mass Museum of Contemporary Art, North Adams, MA “A to B” – user interactive, mixed media	January 2011
Design Does – Crane Gallery, Philadelphia, PA “Pixel” and the “X Marks the Spot” Projects	April 2010
Into the Open – National Constitution Center, Philadelphia, PA Edible Schoolyard Garden Exhibit	July 2009
Bicycle Film Festival – Philadelphia PA Filmed by Bike – Portland, OR “Bicycle Cupid” – Short Film	June 2009 February 2009