

Jack Cian Boland

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Objective	<i>To obtain a full-time mechanical engineering position in a product design/development firm.</i>
Education	University of Wisconsin-Madison B.S. Mechanical Engineer , May 2013 Certificate in Integrated Studies in Science, Engineering, and Society with a focus in design
Work Experience and Research	Design Concepts Madison, Wisconsin, Sept. 2013—Current Mechanical Engineer <i>September 2013 - Current</i> <ul style="list-style-type: none">• Drove development of new products from early brainstorming and concept generation to prototyping and technical execution through DFM and handoff to manufacturing, with a heavy focus on medical devices and products targeting the developing world.• Managed project development, engaged directly with clients and worked closely with a diverse team of design researchers, industrial designers and engineers to balance technical requirements with aesthetic and usability objectives as part of a human centered design process.• Developed complex CAD databases using robust Master Modelling techniques for driving complex assemblies and surface models and employing FEA simulations to drive and validate design decision.• Engaged with vendors to negotiate design refinements for high volume injection molding (50k to >1million parts). Prototype Software Developer <i>January 2016 - Current</i> <ul style="list-style-type: none">• Designed and implemented basic Java GUI's to display sensor data, perform real time analysis/computation and allow for users to interact with test setups dynamically.• Coded projects ranging from mock interactive touchscreen UI's for human factors ergonomics testing of medical technicians to fully functional mobile Android applications for prototyping BLE and WIFI connected devices. Otherlab San Francisco, California, <i>Intern/Junior Engineer</i> ; June-Aug 2012 <ul style="list-style-type: none">• Worked both independently, and collaboratively, on various engineering projects ranging from an electric hydrofoil to inflatable car prototypes for automotive company.• Redesigned, tested and fabricated components for an electric hybrid cargo tricycle using CAD and a wide variety of prototyping tools, such as laser and water-jet cutters. Frontier Fellow & Undergraduate Intern <i>Wisconsin Institute for Discovery</i> , Sept. 2012-Aug. 2013 <ul style="list-style-type: none">• Independent research project focused on developing a mechatronic apparatus for physically rendering data streams and environment interaction, using computer controls, microcontrollers and CAD.
Honors, Awards and Competitions	<ul style="list-style-type: none">• Frontier Fellow; Wisconsin Institute for Discovery; Spring 2013• Global Steward's Sustainability Prize competition; Spring 2012; GRAND PRIZE (Awarded \$17,000)• CleanTech Open 2012; SEMI-FINALIST• Wiscontrepreneur 100 Hour Challenge; Spring 2012; FINALIST• Dean's Honor List; Fall 2009 & Fall 2013
Leadership	Engineers Without Borders <i>Financial Manager</i> May 2011 - June 2013 <ul style="list-style-type: none">• Managed and oversaw the financial transactions and records of the five different projects (Haiti, El Salvador, Kenya, Rwanda, and Domestic) within the Engineers Without Borders UW Madison Chapter.
Other Skills	<ul style="list-style-type: none">• Certified and experienced working in a machine shop, including multiple prototyping and CNC machines.• Experienced with Java, Objective C, Python, Android, PHP, Javascript, iOS/Swift• CAD with Solidworks (Master Modelling, Surfacing, Parametric modeling), NX, Autodesk Inventor, Adobe Design Suite, Microsoft Office