

# Daniel Bauen

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**Current Address:**

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Atlanta, Georgia \*\*\*\*\*

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- EDUCATION**      **Georgia Institute of Technology, Atlanta, Georgia**      **2001-2004**  
**Bachelor of Mechanical Engineering, December 2004**      **GPA 3.34**  
**CO-OP Certification**
- EXPERIENCE**      **Function Engineering Inc.**      **2006-Present**
- Mechanical design and analysis consultant utilizing Pro-E and Solidworks.
  - FEA analysis, tolerance stackup, design for manufacturing.
  - Test fixture designs that implement microcontrollers for automation of tests.
- Georgia Institute of Technology – Architecture Dept.**      **Volunteer Consulting 2007**
- Using **Solidworks**, redesigned the moving shade mechanism for the shade panels on the roof of the Georgia Tech Solar House, their entry into the international Solar Decathlon Competition.
- Fusion Designs**      **Consulting 2005-2006**
- Create 3D models of silicone kitchen implements using **Solidworks** Surfacing
  - Product design incorporating mechanical, electrical and electronics aspects.
- Gravity Group LLC**      **Consulting 2005-Present**
- Mechanical design and 3D modeling of monumental, interactive, steel and stone sculptures using **Pro-E** and **Solidworks**.
  - Keystone Sculpture at Burning Man 2005 “Colossus” - 70,000 lbs of interactive stone and steel
  - Rockspinner – A series of 12,000 lb spinning boulders installed in Detroit, Switzerland, and Atlanta. Some have a solar powered motor drive in the base to spin the stone when no one is manually spinning it.
  - Breeze – An Interactive Robotic Tree installation for international art show in Switzerland
  - Proposal writing for art installations and international art shows.
- RomanticCabin.com**      **2003-2006**
- Luxury vacation cabins in NC mountains - Manager and owner
- Demands and enhances management, sales, and customer service skills
  - Designed custom electronics components to incorporate into home automation devices.
- Facet Technologies – A Matria Company**      **CO-OP 2002-2004**  
**Research and Development Engineer for innovative medical devices**
- Worked with a team of mechanical engineers and industrial designers on the design, innovation, and production of diabetes related medical devices, from conception to production.
  - Modeled designs using **Solidworks** and **ProE**, and created drawings for manufacture.
  - Developed new testing devices and methods for products.
  - Quality Control Experience. Setup the QA documentation and supervised the technicians.
  - **Designed, and constructed a custom assembly line machine** to streamline the assembly of a product. The machine was built almost entirely by me, salvaging most of the raw materials from an out of commission packaging machine. Designed the electronic system to control the machine, count parts, and provide safety systems. The machine had to conform to OSHA.
- RESEARCH**      **University of Alabama at Birmingham**      **2000**  
**Biomechanical Engineering Research Assistant**
- Performed stress test on polyethylene implant samples of varying irradiation
  - Worked with graduate students researching the effects of car side impact accidents on the pelvis. Created 3D models of pelvis from MRI slices for finite element analysis.
- University of West Georgia**      **1999-2000**  
**Carrollton, GA**
- Optics research with helium neon lasers lead to published paper.
  - M Jackson, D Bauen and J E Hasbun, “Investigation of laser fundamentals using a helium–neon laser”, Eur. J. Phys. 22 (2001) 211–218

## SKILLS

- **Fluent in French**
- **Experienced** with tools/machine shop equipment (mills, CNC, lathes, welders, etc).
- **Have the ability to build what I design.** This includes automating mechanical systems with electronics and microcontrollers and PLC.
- **Creative Building and Problem Solving Skills** experienced gained from participating in many design competitions, and working as an R&D Engineer
- **Software:**
  - Microsoft Office
  - Matlab
  - LabView
  - Basic Programming
  - SolidWorks (CAD package)
  - EES
  - IDEAS (CAD package)
  - ProEngineer (CAD package)
  - AutoCAD
  - FEA (Cosmos, etc)
  - Web design software and programming