

# Sarah L. Kirchoff

214 S. Randall Avenue  
Madison, WI 53715

skirchoff@wisc.edu  
262.366.3685

W30675 Beaver Lake Road  
Hartland, WI 53029

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## OBJECTIVE

Entry-level engineering position with special interests in product design and prototyping.

## EXPERIENCE

### **Wisconsin Formula SAE Racing Team**, University of Wisconsin - Madison

#### **Frame & Body Group Leader**, August 2007 – Present

- Lead R&D and design of carbon fiber composite monocoque chassis for 2009 car
- Educate new team members about frame and body design and manufacturing processes
- Manage weekly tasks within group and meet with other group leaders to collaborate on design of car
- Gain sponsorship and maintain existing sponsor relations

#### **Frame & Body Group Member**, January 2007 – August 2007

- Traveled to Hockenheim, Germany to compete at Formula Student Germany
- Designed and manufactured two-piece carbon fiber cockpit
- Led group members in carbon fiber lay-ups and other body work manufacturing
- Designed and programmed new team website: [www.uwracing.com](http://www.uwracing.com)
- Designed new sponsor information packet

### **Introduction to Engineering (InterEgr160)**, University of Wisconsin - Madison

#### **Student Assistant**, September 2007 – December 2007, September 2008 – Present

- Responsible for group of 13-16 freshman engineering students
- Mentor students and provide link between instructor and students

### **General Motors**, Warren, MI

#### **Upper Structures Intern**, May 2008 – August 2008

- Performed FE analysis and crash simulations for mass reduction efforts
- Designed test setup for analysis of press hardened steel application

### **General Electric – Consumer & Industrial**, Louisville, KY

#### **Technical Co-op – Cleaning Products**, May 2007 – August 2007

- Built prototype units and conducted flammability testing
- Worked closely with Industrial Design department to refine product design

#### **Technical Co-op – Innovations**, August 2006 – December 2006

- Developed new appliance to be introduced in 2008
- Used Pro/ENGINEER to design integrated sensor housing which was prototyped using injection molding
- Possible patent for design of valve component
- Worked with engineering teams based in Louisville, KY and Hyderabad, India

### **Johnson Controls – Battery Division**, Glendale, WI

#### **Summer Intern**, May 2006 – August 2006

- Conducted lifecycle testing on NiMH cells
- Compiled research report on competitor companies in NiMH market

### **Civil Information Technology**, University of Wisconsin - Madison

#### **Computer Technician**, October 2005 – May 2006

- Provided computer support for faculty, staff, and graduate students in the Civil Engineering department
- Increased efficiency through Windows Unattended Install CD

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## EDUCATION

**University of Wisconsin**, Madison, WI Overall GPA: 3.3/4.0

**BS Mechanical Engineering**, expected May 2009

**Business Certificate, Technical Communication Certificate**

- Earned 34 credits through advanced placement testing and 16 Spanish retrocredits

### Academic Design Projects

- *State Street "No Step" Project*: Worked in a team to design and build a carbon fiber composite prototype ramp to allow handicap access to businesses on Madison's State Street

## SCHOLARSHIPS

2008 Parker Hannifin Scholarship  
2006 & 2007 Faustin Prinz Scholarship  
2004 UW Engineering Freshman Scholarship Award

## AWARDS

Spring 2005 – Fall 2007 Dean's Honor List  
2004 AP Scholar with Distinction  
(2) 2004 Scholastic Art Silver Keys

## ORGANIZATIONS

Society of Automotive Engineers  
Pi Tau Sigma Honor Society

## SKILLS

Pro/ENGINEER, Solidworks, Unigraphics, AutoCAD, Rhinoceros, Adobe Creative Suite,  
Hypermesh/Hyperview  
Windows, Mac, Unix, and Linux operating systems  
Spanish (7 years, tested into 5<sup>th</sup> semester as a freshman)

## INTERESTS

Motorsports  
Photography and Graphic Design  
Industrial Design