

# KEITH WAKEHAM

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## EDUCATION

- 2003-Present      **Memorial University of Newfoundland**, St. John's, NL, Canada  
Faculty of Engineering and Applied Science  
Completed Term 6 of 8 Bachelor of Mechanical Engineering Co-op Program  
Graduation Date April 2009
- 2003      **Holy Spirit High School**, Manuels, NL, Canada  
Graduated with honours  
Completed 3 Advanced Placement Courses with University equivalency

## EMPLOYMENT

- Jan 2008 – April 2008      **General Motors of Canada, Oshawa Car Plant**      Oshawa, ON, Canada  
*Production Group Leader*
- Led a team of workers doing partial assembly of engines and related for Chevrolet Impala and Buick La Crosse
  - Aided in implementation of Global Manufacturing Systems (GMS) initiatives including job rotation
  - Assisted team leaders in reviewing and implementing changes to job elements on production line
- May 2007 – August 2007      **Marine Institute Offshore Safety and Survival Center**      St. John's, NL, Canada  
*Research assistant for Condition 18 trials*
- Involved in Sea trials intended to verify rescue vessel capabilities for installations in Atlantic ocean
  - Aided in the development of prediction model based on multiple data sources (video, GPS, written logs)
  - Designed improved prediction model that characterized vessel accelerations for more accurate rescue times
  - Proposed redesigned portable harsh environment recording equipment setup currently being implemented
- Sept 2006 – Dec 2006      **Marine Institute Offshore Safety and Survival Center**      St. John's, NL, Canada  
*Research Assistant for SARnif 150 towing*
- Worked long days on Ocean research vessel with life rafts as part of research team
  - Heavily involved with extensive field motion capture and analysis using Peak Motus
  - Wrote detailed training manual for setup, capture, and motion tracking
  - Researched and specified video equipment for offshore firefighting training area
- Jan 2006 – April 2006      **Charon**      St. John's, NL, Canada & Wilmington, NC, USA  
*Project Lead on student startup project*
- Lead on project for uncompressed high definition digital cinematography recorder
  - Designed Parallel ATA hard drive interface to record SMPTE 274 compliant video
  - Designed Printed circuit boards and mocked up interface electronics
- June 2005 – August 2005      **Design Management Group**      Gander, NL, Canada  
*Engineering Assistant*
- Updated city master plans to reflect as-builts in AutoCAD
  - Surveyed for Commercial building sites
  - Troubleshoot Computer systems and recovered data
- June – September 2003      **Wavelight**      St. John's, NL, Canada  
*Production Assistant*
- Aided in the setup of audio / video production equipment for video shoots

## Skills

### **Metalwork**

- Over 500 hours of manual machining experience on metal lathes and turret mills in student machine shop
- Experience working with a variety of metals including aluminum, brass, steel, stainless steel, and titanium alloys
- CNC experience with MasterCAM X and small 3 and 4 axis CNC mills
- Limited Mig and Arc welding experience

### **Drafting and mechanical design**

- Extensive background in Solid modeling in Solidworks, adept in many other cad applications
- Involvement in many cad related design projects.
- Experienced with Engineering stress analysis using FEA such as Ansys Workbench and Cosmos
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### **General office skills**

- Well versed in Office packages such as Microsoft Office and Visio
- Extensive background in image and video editing, manipulation, and analysis
- Experience in writing standard formatted reports using Latex

### **Certification**

- Valid driver's license with defensive driver training course
- OHS Certified by Memorial University of Newfoundland Engineering Faculty March 2005
- Completed Emergency First Aid training in 2005

## Interests

### **Alternative Energy Automotive and design**

- Passionate about alternative vehicles and propulsion systems; free time spent designing and researching
- Initiated K1 electric car project to gain valuable design experience for desired career path
- Designed and simulated multiple Formula SAE space frames in FEA for size and weight optimization

### **General Interests**

- Mountain biking; Trail riding, cross country, commuter cycling, training
- Photography; Local interests, automotive

## Achievements

### **K1 electric car**

March - August 2007

- Designed major components of lightweight electric car over 5 months
- Conducted numerous electromagnetic and static structural analysis to improve part design
- Currently writing a chassis development paper for students

### **Michael T. Hiscock Scholarship**

September 2003

- Awarded scholarship for outstanding work ethic

### **Skills Canada Competition**

2001 – 2003

- 3 time provincial winner and national Skills Canada competitor representing Newfoundland in 3D computer animation