

# Maxwell D. Wheeler

## Address:

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## Contacts:

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High School: Nederland Middle Senior High – Diploma with Honors

Higher Education: Northern Arizona University- Senior

Major/Minor: Mechanical Engineering / Mathematics

Expected graduation: December 2011

## Relevant Experience in Education:

- |                                    |                       |                          |
|------------------------------------|-----------------------|--------------------------|
| ✘ Design in Mechanical engineering | ✘ Bio-inspired Design | ✘ Machine Design         |
| ✘ Computer Aided Design            | ✘ Fluid Mechanics     | ✘ Thermodynamics         |
| ✘ Computer Programming             | ✘ Materials Science   | ✘ Numerical Analysis     |
| ✘ Engineering Statistics           | ✘ Calculus I/II/III   | ✘ Differential equations |
| ✘ Dynamics                         | ✘ Statics             | ✘ Mechanical Vibrations  |
| ✘ Machine Design                   | ✘ Heat Transfer       | ✘ Senior Design          |
| ✘ Finite Element Analysis          | ✘ Advanced CAD/CAM    |                          |

## Relevant Work Experiences:

### Engineering Internship:

#### **Sturm Ruger & Co.- Engineering Department**

Engineering, design, and firearms manufacturing

Designed and constructed fixtures and small machines, fixed assembly line tools, updated drafts to CAD, installed machinery.

### Skills:

- |                             |                     |                                  |
|-----------------------------|---------------------|----------------------------------|
| ✘ Operation of advanced CNC | ✘ Fanuc controls    | ✘ Precision machining techniques |
| ✘ Industrial design         | ✘ Factory processes | ✘ Lean/Kaizen operations         |
| ✘ Assembly line processes   | ✘ Heat Treatment    | ✘ SolidWorks design and analysis |

### Research, Design and Manufacturing in Biomimetics:

#### **Northern Arizona University - Departments of Biology and Mechanical Engineering**

Creating, refining and prototyping biomimetic devices.

Work with Professor Ted Uyeno and Fellowship Professor Kiisa Nishikawa on systems in muscle structure and control.

### Skills:

- |   |  |
|---|--|
| ✘ Operation of Rapid Prototyping Machines   | ✘ Research in fields outside engineering |
| ✘ Knowledge of Biological Systems and terms | ✘ Laser Scanning/ 3D modeling objects    |
| ✘ Small scale and precision machining       | ✘ SolidWorks and Catalyst software       |

### Machine Shop Manager:

#### **Northern Arizona University Engineering Fabrication Lab**

Manager, machinist, TA for Manufacturing Processes Lab.

Manufacture parts and components for professors and clubs including ASME and SAE.

Projects include Mini Baja, Human Powered Vehicle, Super-Mileage vehicle

### Skills:

- |                                |                                |                    |
|--------------------------------|--------------------------------|--------------------|
| ✘ Welding (MIG, TIG, Oxy)      | ✘ Mill Operation (Manual/ CNC) | ✘ Lathe Operation  |
| ✘ Large saws (use/maintenance) | ✘ Drills                       | ✘ Hand tools, etc. |

Maintenance and Facilities Upkeep:

**National Park Service**

WG5 Maintenance and Facilities Personnel

Cleaning and fixing facilities and vehicles at visitor centers at Walnut Canyon, Sunset Crater and Wupatki National Parks.

Skills:

- ✘ Truck repair, modification and operation
- ✘ Highway work and repair
- ✘ Painting
- ✘ Chemical handling
- ✘ Trail Maintenance
- ✘ Manual labor
- ✘ OSHA training
- ✘ Office Design

**References available upon request**

What Else Makes Me the Best Candidate for the Job:

Leadership Activities:

- ✘ Member of ASME – 2008/9/10
- ✘ Chapter Historian -2011  
Work on human powered vehicles and other design projects to apply my knowledge in a non-classroom environment.
- ✘ President of NAU Cycling- 2008/9  
Planned and organized events while keeping a role in the NAU Club Sports council. Ran meetings, led rides and raced at a national level.
- ✘ Vice President of NAU Cycling- 2009  
After taking on large course loads, I dropped my presidency and ran for a lower office in order to make more time for my studies while still remaining an active member.

Other Job Experience:

I have made it a goal to take on a different job each summer between semesters in order to learn and gain a broader set of skills. While it is important to have knowledge in mechanical engineering, I believe it is also crucial to understand other areas of expertise and their specific value.

Zip-line Tour guide in Alaskan Rainforest.

- ✘ **Alaska Canopy Adventures**

Bicycle Mechanic

- ✘ **Performance Bikes**
- ✘ **FIX gravity racing team**
- ✘ **Independent shop**

Mountain bike instructor

- ✘ **Single Track Mountain Bike Adventures**
- ✘ **Wild Bear Science School**

Food Service

- ✘ **Jamba Juice**

Construction work

- ✘ **Peak Building Services**

Who I Am:

I am a devoted student looking for a job opportunity that will teach me more about the world of engineering. I frequently travel and have a large drive to explore new things. My hobbies include Nordic skiing, biking, camping, hiking and tinkering with home projects. I am a hard worker and will not hesitate to do extra work in order to accomplish goals. My skills as an independent thinker combined with my talents in communication and teamwork make me an excellent candidate for hire.