

Vanessa McHale

2308 University Ave. Apt 70 Madison, WI 53726 | (608)338-7987 | tmchale@wisc.edu

Objective

- Use mathematical skills to solve challenging problems

Education

BA | MAY 2017 | UNIVERSITY OF WISCONSIN-MADISON

- Major: Mathematics
- Minor: German
- Related coursework:

Math 721 – A First Course in Analysis (graduate level)	Math 531 – Probability Theory
Math 741- Abstract Algebra (graduate level)	Math 567 – Elementary Number Theory
Physics 711 – Dynamics (graduate level)	Math 551 – Elementary Topology
Physics 721 – Electrodynamics (graduate level)	
Math 770 – Foundations of Mathematics (graduate level)	

HIGH SCHOOL DIPLOMA | MAY 2013 | MONTGOMERY BLAIR HIGH SCHOOL

- Related coursework:
 - Foundations of Computer Science
 - Algorithms and Data Structures
 - Thermodynamics

Experience

INTERN | CARNEGIE INSTITUTION OF WASHINGTON – GEOPHYSICAL LABORATORY | JUNE-AUGUST 2012; MAY-AUGUST 2013

- I studied the electrocaloric effect using molecular dynamics, with the program DLPOLY.
- I worked in the bash shell, and developed a proficiency with Linux.
- I wrote python scripts for data analysis, and made edits to FORTRAN code.

STUDENT HOURLY | ERIKSSON LAB – UW PHYSICS DEPARTMENT | MAY 2014-AUGUST 2015

- I implemented Ethernet packet reception and data analysis on an FPGA, coding in VHDL.
- I designed and built a temperature and humidity monitoring system for the lab, which updated a web server that I set up using lighttpd.

Skills

JAVA

- One year of experience with Java in a classroom setting.

PYTHON

- I wrote scripting to perform data analysis, as well as scripts to collect sensor data.

VHDL

- I wrote VHDL code that received Ethernet packets on an FPGA.

BASH SHELL

- I have worked in the bash shell and written scripts.

FRENCH & GERMAN