

Education:

Bachelor of Arts, Coe College, Cedar Rapids, IA, 5/2013

GPA: 3.923

Majors: Physics and Mathematics

Minor: Computer Science

Honors:

- Dean's List, Coe College
- Eagle Scout
- William Lowell Putnam Mathematical Competition
- ACM ICPC (International Programming Competition), Regional competition site winners

Internship Experience:

Rockwell Collins Internship, Rockwell Collins, Inc. Advanced Technology Center,
Microelectronics Packaging Unit, Cedar Rapids, IA (6/2011-8/2011)

Microelectronics die attach process development

- Mentor: Guy Smith, Sr. Mechanical Engineer, Rockwell Collins, Inc.
- Experience with: class 10000 clean room, chip bonder, wire bonding, stub bumping, plating baths, TLP bonding, AuSn Eutectic bonding, solder bumping, BGA attachment, cross sectional die analysis
- Wrote working papers on No Clean microelectronics die attachment and Transient Liquid Phase bonding

Research Experience:

May Term Research, Coe College Physics Department, Cedar Rapids, IA, 5/2010

Glass Research on Borate Glasses

- Mentor: Dr. Steve Feller, Physics Department, Coe College
- Worked with other students to research the structures of borate glasses
- Equipment used: Pycnometer, Differential scanning calorimeter, Scanning electron microscope, Laser levitator, Raman spectrometer, X-ray diffractometer

Summer Research, Coe College Physics Department, Cedar Rapids, IA (6/2010-8/2010)

Effects of Pipe Wall Vibrations on the Sound of a Free-Reed Wind Instrument

- Mentor: Dr. James Cottingham, Physics Department, Coe College
- Examined the effects of the vibrations in the pipe walls of free-reed wind instruments.
- Equipment used: Fourier transform spectrum analyzer, Frequency generator, Energy dispersive x-ray spectroscopy with Scanning electron microscope
- Theoretical Modeling with Matlab and Mathematica
- Presented results of our material property measurements of bamboo at the Acoustics Society of America's National Meeting in Seattle, 5/2011

Conferences and Presentations:

- 161st Meeting of the Acoustical Society of America, Presenter, Seattle, WA, 5/2011
- Midwest Undergraduate Mathematics Symposium, Simpson College, Indianola, IA, 4/2010
- All-Iowa Glass Conference, Coe College, Cedar Rapids, IA, 8/2010

Computer skills:

Microsoft Office Suite, Mathematica, Matlab, Autodesk Inventor, AutoCAD,
C++ programming language, LaTeX

Leadership and Activities:

Coe Physics Club Treasurer, Coe College Math Club, Tutor for the Academic Achievement Program (Math, Physics, Computer Science), Murray Hall Board of Directors