David M. Cartolano

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EDUCATION

University of Illinois at Chicago (UIC)

Chicago, IL

Graduated: May 2017

Bachelor of Science in Mechanical Engineering

GPA 3.41/4.00

Taylor University Upland, IN

Major in Engineering Physics August 2013 – May 2014

GPA 3.56/4.00

SKILLS

Software: DraftSight, SolidWorks, AutoCAD, Ansys; Microsoft Office Suite

Programming: Python, C++, Matlab

Communication: Exceptional writing skills, Conversational Spanish

RECENT PROJECTS

Acoustic Damping Metamaterials

Aug 2016 – May 2017

• Assist Professor Jie Xu with three other students to complete a patent application

- Improve manufacturing time; already shortened from over 45 minutes to under a minute
- Optimize the soundproofing performance by exploring the effects of various parameters
- Identify applications and develop a comparison with respect to commercial materials

Rope Climbing Mechanism

Jan 2015 – May 2015

- Competed with other student groups as a part of a four-member team
- Manufactured a 3D printed mechanism propelled by helium balloons and designed in SolidWorks
- Successfully climbed all 3 obstacles: a length of rope, metal conduit, and PVC pipe
- Placed first for design due to low manufacturing cost of \$18 and only 3.8 MJ of embedded energy

Automated LEGO Vehicle

Jan 2014 – Feb 2014

- Worked on a four-member team to develop a self-propelled vehicle made from LEGO bricks
- Programmed light sensors using Arduino to allow the vehicle to accurately follow a path
- Used DraftSight to design and draft a wooden bridge for the vehicle to cross
- Manufactured bridge pieces using a laser cutter, which were later assembled

WORK EXPERIENCE

Postmates Chicago, IL

Bike Courier Feb 2016 – Present

• Deliver items or food to customers as an independent contractor

Lincoln Park Zoo Chicago, IL

Guest Operations Team Member Jul 2015 – Jan 2016

• Worked selling tickets, directing guests, and operating the train

Pilsen Vintage Chicago, IL

Electronics Specialist, Cashier May 2015 – Sep 2015

• Responsible for inventory, appraisal, and restoration of used audio and video equipment

ACTIVITIES

Pi Tau Sigma, Alpha Sigma Chapter UIC Jazz Workshop Apr 2016 – Present

Aug 2014 – Dec 2014