

Zachary Cox

Current Residence:

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Permanent Residence:

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Education

University of Illinois , Bachelor of Science in Mechanical Engineering. GPA: 3.11/4.00	2011 – [May 2015]
Joliet Junior College , Dual Credit (with <i>Wilmington High School</i>), GPA: 4.00/4.00	2008 – 2011
Wilmington High School , Class Rank: 7/102	2007 – 2011

Work Experience

Boeing A-10 Wing Replacement Program May – August 2013

Design and Manufacturing Engineering Intern

- Proposed and initiated large-scale process improvements with the use of developing technologies.
- Redesigned A-10 aircraft structures with the use of NX (Unigraphics) to minimize manufacturing costs.
- Produced quality control field analysis documents of fracture critical parts in response to falling supplier quality.

Backyard Pools Inc. May – August 2012

Sales Associate

- Directed treatment of mismanaged pools and spas using educational background and on the job training
- Directed repair and service of pool equipment and advised sales associates in complex cases.

Area No. 1 Recreational Club May 2010 – August 2011

Lifeguard

- Supervised lakeside beach and organized recreational club events including swimming lessons and picnics.

Extracurricular Activities

Student Aircraft Builders: October 2012 - present

Co-Founder and Technical Vice President

- Co-founded student organization dedicated to the construction of homebuilt aircraft.
- Created and implemented system of construction allowing for the aircraft to be constructed by very large numbers of builders (60+) and serve as vital tool in gaining and utilizing engineering knowledge.
- Established sheet metal construction and computer aided design training courses.
- Employed Microsoft Projects to establish detailed schedules using Lean and Theory of Constraints principles.
- Created and staffed the three committees collectively tasked with the construction of the aircraft.

Illinois Space Society August 2011 – present

University Student Launch Initiative: Structures Manager

- Worked to design the unfolding of a quadrotor UAV carried by a Class II High Powered Rocket
- Supervised the construction of the launch vehicle
- Spoke with young aviation students from Tomorrow's Aeronautical Museum in Compton, CA

Habitat for Humanity Spring 2012

Collegiate Challenge

- Worked with other students and trade professionals in the construction of affordable housing units.

Illini Motorsports Fall 2011

EcoCar, Urban Concept Team

- Collaborated with team members in the design and analysis of the body and regenerative braking systems.

Awards and Scholarships

- Master of Rube Goldberg Invention (Northern Illinois Champion, Honored by Argonne National Laboratories)
- CJ Begler Memorial Scholarship
- John and Bessie Tryner Memorial Scholarship
- H James Spangler Scholarship

Programming and Computer Aided Design Experience

Extensive Parametric Modeling with NX (*Unigraphics*) -- Microsoft Projects -- MATLAB -- ANSI C -- ProEngineer 5.0.
Microsoft Excel -- HTML