

# ANDREW V. ZWICKY

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## WORK EXPERIENCE

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### John Deere

Senior Engine Controls Engineer

2017 - Present

Engine Controls Engineer

2014 - Present

- Overhauled existing code build process, refactoring many batch files into one application **C#**
- Lead deployment of Mercurial by creating support tools and running a weekly user's group **Python**
- Resolved many embedded engine controls software bugs **C**
- Introduced continuous integration in team by creating build-on-push branches for CI **Python, Jenkins**
- Designed, implemented, and tested embedded control code for new exhaust throttle **C**

Engine Performance Analyst

2013 - 2014

- Developed high fidelity GT-Power engine simulation models for 4.5L engines
- Assisted calibration engineers in calibrating engine throttle via simulation

Continuous Improvement Engineer

2012 - 2013

- Commonized head bolts across engine series to reduce operator tool changes
- Investigated and resolved oil pump gear failures via part updates

### Cummins Engine Company, Inc.

Product Validation Engineer

2011 - 2012

- Lead a team developing a pre-chamber spark plug cup from concepts to design release
- Wrote test plan and analyzed results of temperature reduction from cooling gallery pistons

## TECHNICAL SKILLS

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Proficient: Python C# C Mercurial

Exposure: Jenkins Linux Git C++ Latex MATLAB Simulink/Stateflow

## VOLUNTEER & PROJECT EXPERIENCE

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Children's Oncology Services – Volunteer Summer Camp Counselor

2018

- Volunteered at Camp One Step, a summer camp for children diagnosed with cancer
- Supervised 13-16 year olds in a camping & outdoors focused program for one week

Cockatrice (A Cross-Platform Virtual Tabletop) – Open Source Contributor

2018

- #2479: Updated picture downloading code to correctly fallback to new URLs on 404 errors. **C++**

Mercurial (Version Control Software) – Open Source Contributor

2017

- #3153: Fixed Mercurial to correctly handle deleted subrepositories **Python**
- #5479: Fixed diff routine to properly count lines starting in -- or ++ **Python**

reddit.com/r/dailyprogrammer – Volunteer Challenge Submitter

2017-2018

- /r/dailyprogrammer is about challenging programmers of all skill level with weekly programming challenges
- Responsible for creating 1-2 programming challenges a month for others to solve

## EDUCATION

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University of Illinois at Urbana-Champaign

Bachelors of Science in Mechanical Engineering with Honors

GPA: 3.56/4.0

Major GPA: 3.68/4.0