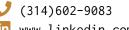
Andrew Zoghby

azoghby@illinois.edu
thttps://zoghby.net/
https://github.com/beezow



in www.linkedin.com/in/azoghby



May 2022 University of Illinois Urbana-Champaign BS in Computer Engineering.

GPA: 3.88 / 4.0 | College of Engineering Dean's List Every Semester

May 2018 Parkway South High School.

Summa Cum Laude (Highest Honors)

Work Experience

Caterpillar, Software Engineering Intern

May 2020 - Current

- Recruited for new position within Caterpillar.
- Assigned a new application to develop display software from scratch.
- Programmed new engine display features using Java and HTML.
- Designed an emulation platform to provide analytic data to legacy hardware.

Caterpillar, Control Systems Engineering Intern

May 2019 - May 2020

- Caterpillar extended the position through the academic year for me.
- Analyzed memory chip failures to assess future risk and minimize it.
- Designed service routines to locate hard to detect, mechanical faults on engines.
- Integrated new requirements into existing control system specifications.
- Implemented control system specifications with Matlab Simulink.
- Built and launched a collaborative database allowing engineers to reuse past calibrations and distribute new features to all relevant engines.
- Developed software tools to simplify interactions with the requirements database.
- Performed hardware in the loop (HIL) testing on pre-release software.

Offroad Illini - Baja SAE Team, Electrical and Drivetrain Subteam Member

Aug 2018 - May 2019

- Redesigned gearbox shafts to be more reliable and durable.
- Assisted in manufacturing of suspension and drivetrain components.
- Designed and built a track timer utilizing an arduino and sensors such as a radar.
- Programmed a Java android app to interface with the timer via bluetooth.

First Tech Challenge Robotics Team, Captain and Lead Programmer

Aug 2015, May 2018

- Led team to two consecutive placements at the First World Championship.
- Planned and ran events at elementary schools about STEM education.
- Analyzed camera images using OpenCV.

Skills

C, C++, x86 ASM, Java, Python, Matlab Simulink, Visual Basic, HTML, LTEX git, Native Android Development, Linux System Development, Microsoft Excel Macros, Analog Circuit Analysis

Relevant Courses

ECE 391 Computer Systems Engineering, ECE 486 Control Systems, CS 225 Data Structures, ECE 210 Analog Signals and Systems, PHYS 213 Thermodynamic, PHYS 214 Quantum Mechanics



UIUC College of Engineering Dean's List, HackIllinois Unanimous Grand Prize Winner, Uncommon Hacks First Place IOT Prize Winner, Eagle Scout, FIRST Robotics Dean's List Semi-Finalist