**Permanent Address**
9328 Spirit St.
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# Aaron Young

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## OBJECTIVE

**To acquire a research position for the fall semester of 2019**

## EDUCATION

**UNIVERSITY OF WISCONSIN - MADISON (2018 - EXPECTED 2022)**
BS MECHANICAL ENGINEERING
BS COMPUTER SCIENCES
**Cumulative GPA**: *3.96/4.00*

**VERONA AREA HIGH SCHOOL *(2014 - 2018)***
**Cumulative GPA**: *3.99/4.00*

## EXPERIENCE

WISCONSIN RACING
**Autonomous Controls and Electrical Leader**
- Developed and implemented vehicle control strategies, deep learning image recognition algorithms and an optimization based path planning/following model
- Managed group of undergraduate students to compete in the autonomous SAE formula car competition Formula Student Germany Driverless

SIMULATION-BASED ENGINEERING LABORATORY (SBEL)
**Undergraduate Researcher**
- Developed the OpenSource physics engine ProjectChrono
- Developed an interface for between ProjectChrono and Robot Operating System (ROS)
- Integrated autonomous algorithms to pilot a simulated vehicle

ENGINEERING EXPO
**Industry Chair**
- Working directly with Fortune 500 engineering employees by contacting and acquiring sponsors for largest student run engineering showcase in the U.S.

INSIGHT WISCONSIN
**Timing Gate**
- Programming microcontrollers and a variety of sensors to develop a more affordable means of gathering accurate time data for UW Track and Field

**Shower Head Water Usage Reduction**
- Developing a shower head that reduces water consumption and notifies user of usage
- Programming a microcontroller and designing an electronics housing using CAD

**Plant Electrical Signaling**
- Worked with a UW-Madison botany professor to develop an efficient system that can monitor electrochemical reactions in plants experiencing stressful environments

## PERSONAL PROJECTS

**ONE-WHEELED SKATEBOARD**
- Designed, coded and fabricated motorized electric skateboard utilizing donated parts, sensors and a microcontroller to balance autonomously

**SMART CHESS PLAYER**
- Implemented computer-vision algorithms using python to recognize chess moves
- Coded chess engine and GUI using Java that analyzed moves and reacted intelligently

## SKILLS

- Java, Python, Matlab, C++
- Fusion 360, Autodesk Inventor, Solidworks
- Arduino, Raspberry Pi, Linux, ROS
- Lathe, Mill