

## **In STEP with students: Matthew Meyers**

by Shane Arman - Friday, March 19, 2010

<http://www.uwosh.edu/today/2586/in-step-with-students-matthew-meyers/>

Working with LEGO blocks and artificial intelligence is how Student Titan Employment Program (STEP) intern Matthew Meyers applies his computer science acumen at the University of Wisconsin Oshkosh.

A robotics lab assistant Meyers, along with fellow assistants Alejandro Carrasquilla and Tim Fendt, both juniors, programs a robot made of LEGO to navigate a maze and extinguish a candle for the Fire-Fighting Robot Contest and Exhibition, which will be held April 24 and is sponsored by Penn State Abington in Abington, Pa.

Meyers and the other students write programming code for the robot and then do physical testing through trials. The robot uses multiple sensors to avoid the maze walls and features an infrared sensor to locate the flame.

**Name:** Matthew Meyers

**Role:** Robotics Lab Assistant

**Department:** Computer Science

**Major:** Computer Science

**Minor:** German

**Year:** Senior

Hometown: Appleton, Wis.

### **What specific tasks do you do for your internship?**

“Our responsibilities consist of investigating the potential uses of the department's LEGO Mindstorms robots for computer science courses, specifically the artificial intelligence course.”

### **How will the internship benefit your education**

“This internship gives me a chance to work with robotics, which is not typically offered in computer science courses.”

### **How will the internship benefit your future?**

“Working with robotics, even briefly, has increased my general knowledge in this area. This will allow me to make more informed decisions if I am working directly or indirectly with robotics or similar technologies in the future.”

### **How has or how will the internship benefit your department?**

“It can be hard for some students to get interested in computer science when they hear about abstract concepts such as algorithms or programming languages. Working with robotics is a more concrete display of what computer science is about. It is my hope that the idea of and potential to work with robotics can generate more interest in computer science and bring in people who may not have been interested in computer science otherwise.”

### **What has been your favorite part of the internship?**

“The whole experience of working with the robots has been great. Artificial intelligence and robotics are two areas that have always interested me, but until now, I had never been able to work with robots. It’s simply a joy to create something and watch it come to life.”

### **Have you faced any challenges?**

“Working with the hardware itself has been a challenge. Even if you write a program that tells the robot to turn 90 degrees, it may only turn 87 degrees. Since we are unable to adjust the hardware itself, we have to learn to work with its flaws, correcting them by adjusting our program.”

### **Supervisor David Furcy, professor of computer science, says ...**

“My students program robots to react to what happens in the real world. You don’t always get what you ask for, so there is all of this uncertainty that the students have to factor into their programs, which usually doesn’t happen in the classroom.”

- [Watch a video about Meyers' experience.](#)

*The Student Titan Employment Program (STEP) offers students quality educational experiences while providing faculty and staff members with needed assistance in areas such as media services, student-faculty research, supplemental instruction, library assistance, instructional technology and academic computing support, and Web page development and maintenance. The program is funded through a one-time investment of \$500,000. More than 110 students are funded through STEP.*

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