

## NEWS

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### Alumnus returns to teach railroad engineering



J. Riley Edwards, visiting lecturer in the Railroad Engineering Program.

You might say J. Riley Edwards (MS 2006, Civil and Environmental Engineering) began his career as a railroad educator during his childhood in Tennessee. As a young teenager, he channeled his love of trains into a first-place science fair exhibit about safety at rail crossings. At the regional competition, his exhibit caught the eye of a state official for Operation Lifesaver, a national initiative to prevent accidents at grade crossings.

One thing led to another, and by the age of 15, Edwards had become Operation Lifesaver's youngest trained presenter. He spoke at local driver's education classes, traveled across the

country to conferences, and helped establish a youth advisory board for the organization.

This fall Edwards became a lecturer in the [Railroad Engineering Program](#) in the [Department of Civil and Environmental Engineering](#). The new teaching position is part of the ongoing expansion of the program, made possible through funding by CN, CSX, Hanson Professional Services and the George Krambles Foundation.

Edwards earned his master's degree in the Railroad Engineering Program at Illinois and also holds a bachelor of engineering degree with a concentration in transportation engineering from Vanderbilt University. After graduating from Illinois, he spent a year as a construction engineer for Hanson Professional Services in Memphis, Tenn., before returning as a member of the faculty.

"It was a tough call for me, because I've always loved being in the field," Edwards says. "That's why I love field trips--I get to put my steel-toed boots back on. But teaching people is really rewarding, especially in something that you've had an interest in since childhood."

Edwards is developing a railroad capstone design course to be co-taught with [Associate Professor Christopher P. L. Barkan](#), the director of the Railroad Engineering Program. The course will give students a comprehensive look at a railroad design project from conception to operation. He will continue his research in machine vision technology, which he began as a graduate student here, and collaborate with Barkan on research funded by the American Association of Railroads' Technology Scanning Committee. The work explores the use of machine vision to continuously inspect rail cars and track components.

Another goal of Edwards' position is to increase enrollment in the railroad engineering classes by spreading the word about expanding opportunities for graduates due to high projected retirements in the railroad industry in the coming years.

"There are a lot of students who don't even know what the railroads have to offer and what great job possibilities there are," he says.

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