



Alumnus Sets Sights on Safety

ERIC SINAGRA'S COMPANY
FOCUSES ON IMPROVING
SIDEWALK SAFETY &
ACCESSIBILITY

By Megan Tressler

Most people don't spend much time thinking about sidewalks. For many walkers and joggers, sidewalks provide a safe, convenient way to get from one place to another. However, for people with disabilities, navigating sidewalks can be a challenge. Eric Sinagra, A'11, wants to make sure sidewalks are safe for everyone.

Sinagra has made sidewalks the focus of his research and career, starting a company centered on improving the conditions of sidewalks. The company, called pathVu and based in Pittsburgh, is still in its infancy, but Sinagra and his partners have big plans to use the company's proprietary technology to help cities and municipalities identify problems with sidewalks and improve safety for everyone—especially people who are blind, use wheelchairs or have a hard time getting around.



Duquesne alumni Eric and Nick Sinagra.

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The pathVu app can be accessed by Apple and Android devices.

“We are trying to help others. We focus on people with a disability, older adults, but it applies to everyone,” says Sinagra. “We want to find a way to help pedestrians improve their lives.”

One of the goals of pathVu is to create a navigation tool that directs pedestrians along the most direct route with the least amount of challenges.

The company uses technology—a manually-propelled computer on wheels with sensors that collect GPS data and detect surface roughness, slope and tripping hazards—developed by Sinagra as part of his master's thesis to investigate how rough sidewalks affect wheelchair users. Because Sinagra and his partners can't physically walk every sidewalk in every town or city, pathVu also relies on people submitting information about sidewalk conditions. All of the information collected is used to help build a database accessed by pathVu's app, which allows users to take pictures of a problem and instantly upload them (the app can be accessed by Android and Apple devices).

Sinagra hopes his company can help cities, municipalities and organizations understand sidewalk problems and prioritize improvements. He recently worked with Washington, D.C. officials to collect data for 66 miles around the city and was contacted by representatives from Toronto about using pathVu's app for a pilot program.

According to Sinagra, current federal Americans with Disabilities Act (ADA) guidelines state that sidewalk surfaces should be stable, firm and slip resistant. Beyond those broad

and vague terms, no firm standards exist, though he says there is a draft for additional guidelines that address specific issues, such as slope, width of sidewalk and roughness.

Though his company drives him now, Sinagra didn't even think of entrepreneurship until about three years ago, when he was finishing his master's thesis and looking to apply the technology he developed.

“As I was finishing the research, I essentially said, ‘I don't want to see the technology sit in the corner and collect dust. I want to see it be used,’” says Sinagra, whose mother, Rosalie, works in the dean's office in the Mary Pappert School of Music at Duquesne.

He was inspired by his brother Nick, A'06, GA'08, who started a company. Nick was also his inspiration in another very important way.

“My brother uses a wheelchair. Growing up with him got me interested in rehab and developing technology for people with disabilities,” says Sinagra, who has seen firsthand how sidewalks can prove challenging for his brother. “There have been those times when we've tried to do something, such as going to a restaurant, and sidewalks caused problems. Seeing the different challenges he faces—it happens that sidewalks is where I ended up.”

Sinagra's commitment to helping others doesn't end with sidewalks. He volunteers with Spiritan Campus Ministry and returns to Duquesne for Mass each Sunday with his wife, Ali (Yorke) Sinagra, A'13.

“Going to Mass at Duquesne re-emphasizes the service part of your life,” he says.

He also tries to live Duquesne's mission through his work.

“The mission says ‘Serving God by Serving Others’ and that's essentially what we're trying to do with the company,” says Sinagra.

The company's next steps are to keep improving its navigation tools, market its technology to potential customers and develop community partnerships (pathVu recently partnered with Duquesne's Office of Residence Life to introduce students to its app and recruit them to report on sidewalk conditions as they travel around Pittsburgh).

“We want to keep proving our technology so it will be implemented widely,” says Sinagra. “Our mission is improving accessibility and walkability for all pedestrians.” ♦