

STUDENT LIFE

Student spent summer inventing

By Lori DeFabio
student life editor

One Behrend student spent his summer doing research and creating software for which he may be awarded a patent as primary inventor.

On June 6, Jason Donnell, EET, 07, left his hometown of Pittsburgh and drove ten hours to Milwaukee, Wis. The six hundred mile drive was necessary because he was chosen as one of ten people across the country to participate in the Research Experience for Undergraduates at the Milwaukee School of Engineering (MOSE).

Donnell became aware of the Research Experience for Undergraduates from an e-mail that Carrie Payne sent out to Behrend engineering students.

"It was the longest application I ever had to fill out," said Donnell. "I had to write a paper saying why I wanted to participate, write papers explaining my knowledge of solid freeform fabrication, send four letters of reference, an official transcript, and my resume."

It took almost two months before Donnell found out that he was chosen to participate in the Research Experience.

"I just figured I didn't get accepted because it took so long before I heard anything," said Donnell. "The school said that they had 80 applicants, and they narrowed it down to 20. Then later I got a message saying that I was one of ten people in the United States accepted."

Participants of the Research Experience for Undergraduates were teamed up with an advisor and given a topic to study. Donnell's topic was "Photographs for the Blind" and was originally the idea of his advisor's colleague. The project was to develop a program that would create a model from a photograph so a person who was blind would be given the opportunity to visualize an image through the sense of touch.

"There was a huge range of products developed," said Donnell. My project was somewhat in the bio-medical field as well as the electrical engineering field. All of the projects were simi-

lar in the sense that they all had something to do with solid freeform fabrication."

Donnell began his project by researching the disability of being blind and using Matlab software to elevate a photograph and turn it into a three-dimensional model. After four weeks of the ten-week program, Donnell decided that the Matlab software he was using was not working out as well as he had hoped and knew that he had to find another program to use.

Donnell discussed his dilemma with another participant, Josh Mueller, at the Research Experience for Undergraduates, and it was recommended to create a program for his project by using the C++ programming language.

"I was provided with the model writer and the file reader parts of the software that Josh downloaded from the internet," said Donnell. "All I had to deal with was the processing portion of the software which was very helpful considering I only had six weeks left in the program. Josh helped me out."

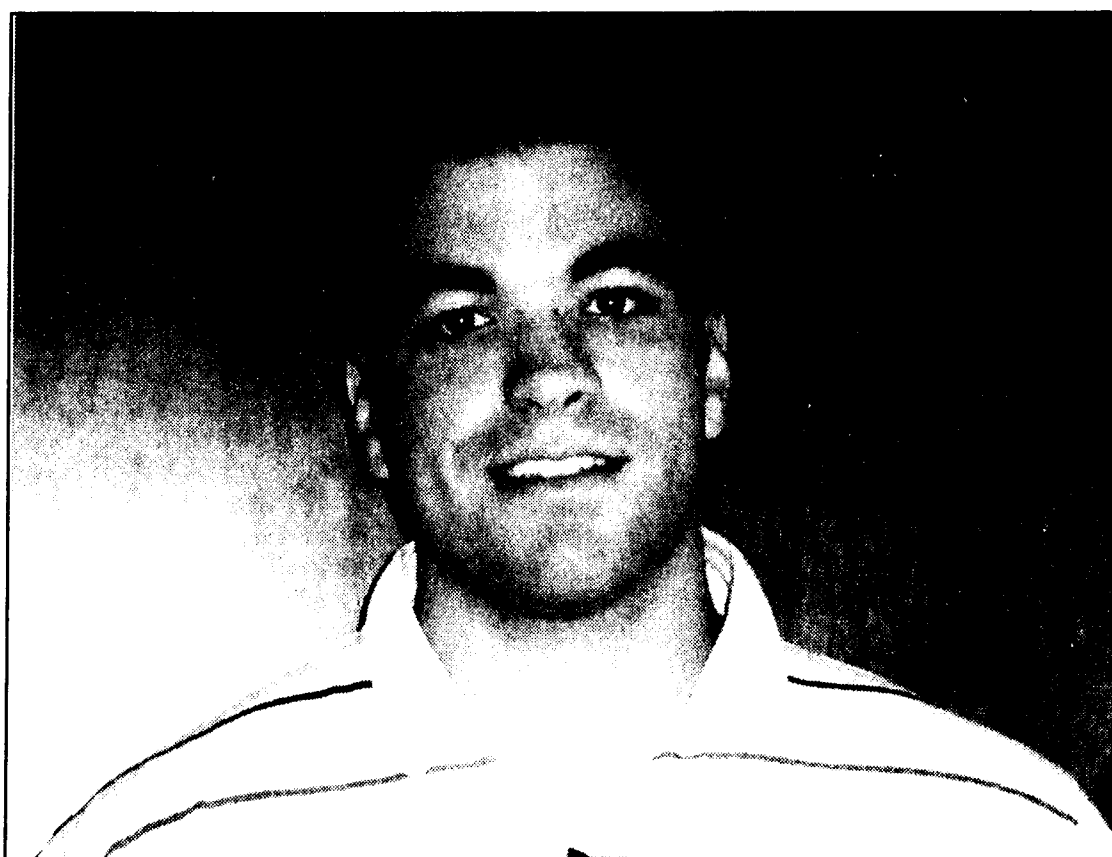
The project to create a model from a grayscale photograph was successfully completed by using the C++ programming language. Three models were created and tested, but because of time constraints, the models were only tested by one person.

The three images tested were of varying difficulties. The first image tested was a playing card that was scanned onto the computer, run through the software, and then sent to the solid freeform fabrication program that turned it into a model. The person testing the model was able to feel the image and could tell it was a nine of clubs.

The second image tested was harder than the first and required the person testing the image to be reminded how to figure out the picture of the image.

"The second image was a picture of a tree with a cloudy sky," said Donnell. "I had to remind him that darker shades are raised higher, and then he realized that it was a picture of a tree."

The third image was the hardest; it was a picture of a ghost town. The person testing the model



CONTRIBUTED PHOTO

Jason Donnell, EET, 07, participated in a 12 week program at the Milwaukee School of Engineering.

felt the images while Donnell looked at the photograph and told him what he was feeling.

"I do have a way to make the hardest image easier to detect," said Donnell. "I could drill out a little hole in the model and place a sensor so when he touched the image, it would speak to him, much like a children's book. I didn't have the time to implement that idea because I lost four weeks working with the Matlab software."

When the Research Experience for Undergraduates ended, Donnell, his advisor, and the Dean of Research at MOSE decided that the software should not be released freely to the public. Instead, Donnell signed an Invention Disclosure

paper stating that he is the primary inventor of the software.

"Right now it is not a finished product," said Donnell. "It just has a black screen and does not have any graphical user interface. That's not marketable. I'm hoping I'm able to finish it from here and then the Milwaukee School of Engineering will help me get a patent."

When asked if he would attend again if the opportunity, he said that he definitely would with the exception of living off-campus and living right in the city next time.

"It's an experience I had to have."

Associate Professor Stars in Erie Playhouse's 'The Best Man'



CONTRIBUTED PHOTO

Mr. John Kerwin, left, stars in the Erie Playhouse performance of "The Best Man."

By Meghan Bool
staff writer

Mr. John Kerwin, Associate Professor of Communications, is starring in the current Erie Playhouse production of "The Best Man," starting this weekend.

"The Best Man" takes place in the political spotlight during a presidential election. It is an intense story about two politicians, Secretary of State William Russell, the good guy, played by Kerwin, and Senator Cantwell, the bad guy. These two politicians are running to become the next president.

It is a dirty race in which Cantwell will do whatever it takes to become the next president. Even though the race has gone to its extreme, Russell does not stoop to Cantwell's level. He only accuses Cantwell of sexual misconduct. In the end, Russell drops out of the running. Because of this, Russell is considered "The Best Man."

It seems very timely that the Erie Playhouse would choose a politically famed play so close to the presidential elections. Kerwin explained that it

was chosen due to this election year.

"It's just theatrical magic," said Kerwin.

Kerwin has been very involved with television, acting, and behind the scenes work for many years. He is originally from New York City and from there traveled to many different places, building experience everywhere he went. Since coming to Erie, he has become very popular in the Erie Playhouse as well as smaller theatres around town such as the Roadhouse and the Directors Circle. He states that this type of art "is an adrenaline push" that allows him to love it as much as he does.

When asked what advice to give to future thespians, Kerwin said, "Constantly get involved in local theatre groups and participate in workshops to better yourself."

"Only act for the love of acting, not for the fame and money. The love and fun of it will be payment in itself."

"The Best Man" will be showing Sept. 16 through Sept. 19 and Sept. 22 through Sept. 26. Show times are 7:30 p.m. with 2:00 shows on Sundays.

Outdoors Club Plans Trip

By Brian Mitchell
contributing writer

The Outdoors Club is planning to take a canoe trip down Allegheny River on Sept. 25 and 26. If you are interested, meetings for the Outdoors Club are held every Tuesday at 7:30 p.m. in Reed 114.

"People should join the Outdoors Club because we go to more places than just the gorge," said Jason Feirrer, CMPEN, 07.

Last year, the Outdoors Club took an adventure trip to the Laurel Highlands located in Ohio, Pa and plans to do the same this year. The club members caved the Laurel Caverns and went whitewater rafting in the Youghiogheny River.

"I thought the trip was a very fun because I got to do a minor adventure," said Raymond McKee, PLET, 05.

There was a lot of climbing, crawling and worming around while caving the Laurel Caverns. The cave consisted of many small spaces, which were tough to get around.

"The toughest climb was at the end when we had to stand on a relatively tough spot and had to figure a way out," said Luke Borowy, BLASC, 03. "The director pointed to the exit and everyone figured a different

way out."

Borowy decided to check out the Youghiogheny River, which was the river they went whitewater rafting in the next day.

"The water was very rapid due to the large amount of rocks in the river," said Borowy. "The rocks make the river flow; without the rocks, the river would flow slowly."

By the evening, everyone met back at camp and cooked foil dinners. Foil dinners are made by wrapping a variety of food (ground beef, carrots, potatoes, etc.) in aluminum foil and cooking it over the campfire. After dinner, people made smores for dessert and were able to talk and get to know one-another.

Sunday morning, the students had a quick breakfast and headed to the Youghiogheny River at for whitewater rafting. Before going on the river, the students learned some quick rules about rafting: how to paddle and what to do when approaching a rock.

"It was on the chilly side in the morning but warmed up as the day went on," said Borowy. "It rained off and on throughout the day."

"I really enjoyed whitewater rafting," said Floyd Mattie, BIOBD, 07. "Navigating the rapids was a pretty intense experience."

SafeNet

Erie County's Domestic Violence Safety Network,
invites you to participate in our

6th Annual March Against Domestic Violence

Date: Sunday, October 3, 2004

Registration Time: 12 - 1 pm

March Begins: 1pm

Join us in demanding that abusers be held accountable for their actions. Show the community that Penn State is standing up against abusive behavior, and show support for all victims of interpersonal violence—both locally and around the nation.

Student Groups / Panhellenic Societies: Wear group t-shirts, or carry your group banner!

Community Service Hours Available for Participants.

Call Lisa - 455-1774, ext. 248, for more details!

Know an interesting student?
Let the Behrend Beacon know.
E-mail us at behrendbeacon5@aol.com