

Best Practices for CISE REU PIs

Jamie Payton
Stephen Gilbert

March 23, 2017
NSF CISE REU New PI Workshop
Arlington, VA

Professionalism & Dissemination

Professionalism & Dissemination:
Professional Development



Applications:
late Oct/early Nov



KEEP
CALM
AND
APPLY FOR
GRAD SCHOOL



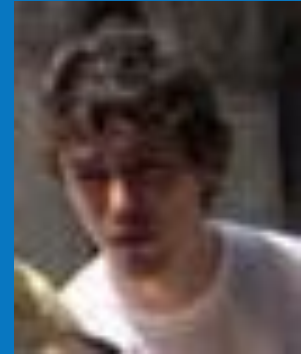
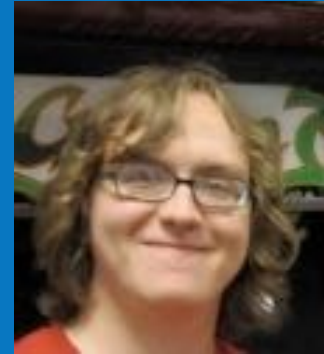
Prep for Grad School

Top Tips

GRE prep programs

Grad school application process & fellowships

Let them know you can help!



**NSF Graduate
Research Fellows**



Extracurricular Stuff

Top Tips

- Cohort is more cohort-y if they have fun!
- Have a plan to help students solve issues (GroupMe?)
- Field trips to labs & industry
- Ask them to share photos with you

Professionalism & Dissemination: Communicating Research Results

Friday, July 11, 2014

Week 6 in WiNS lab

This week I spent most of the week preparing for the mini-conference we will have this weekend. I spent a day and a half practicing and making sure I could convey my ideas and progress in an effective way. The other portion I was able to continue running machine learning algorithms across accelerometer data.

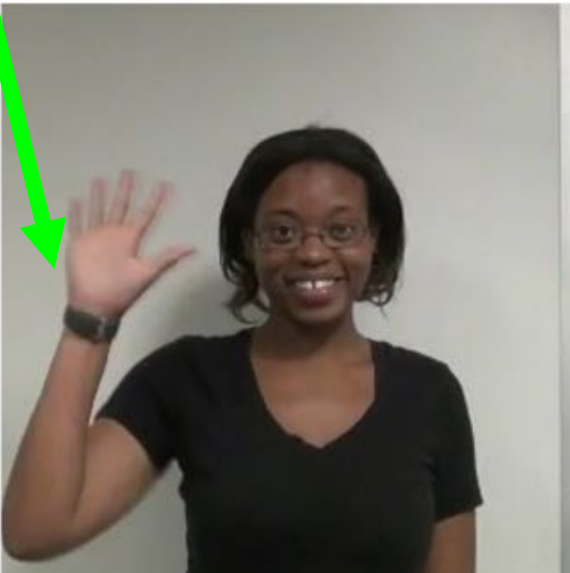
I had collect some data of myself performing some gestures, but I realized that the data, was not labeled. Therefore I did not know where the actions started and stopped. I didn't even remember which gestures I did. Any data I got made no sense. So I took a step back and used a data set with data already labeled. I was able to get some useful data and get practice reading confusion matrices.

Next week, I will use the video camera and ask another REU student or two to use the accelerometer so that I can have some actual data to work with. Also, I would also like to include some "noisy" data such as swatting to see if the machine learning algorithms can detect the specific gestures.

By the end of next week I would like to have at least one data set of accelerometer data from our band labelled, and tested.

Posted by Tori Chambers at 1:36 PM

No comments:



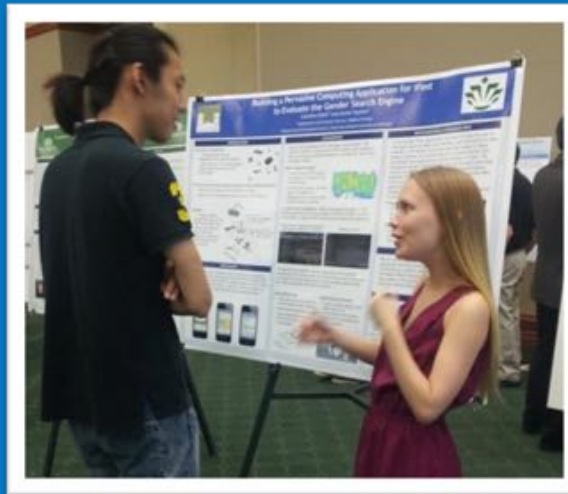
Activity recognition on
wearables

Top Tips

Build capacity throughout REU program

Daily blog posts

Progress presentation at group meetings



Preparation

Top Tips

Build capacity throughout REU program

Give explicit instruction



Preparation

Top Tips

Build capacity throughout REU program

Give explicit instruction

Provide templates & examples



Practice

Top Tips

Build in time for practice

Three minute thesis (3MT™)

Incremental report, paper writing



HotelNet

Computer vision algorithms
& associated tool to
identify locations of human
trafficking

--Abigail Ruggles, REU 2015

Presentations

Top Tips

Make it count

Get non-mentors involved



Presentations

Top Tips

Join Homegrown Regional Events

Don't organize this in your first time running a site!



TAPIA

ANITA BORG INSTITUTE
GRACE HOPPER
CELEBRATION OF WOMEN IN COMPUTING



STUDENT
RESEARCH
COMPETITION



Association for Computing Machinery
Advancing Computing as a Science & Profession

SPONSORED BY  Microsoft

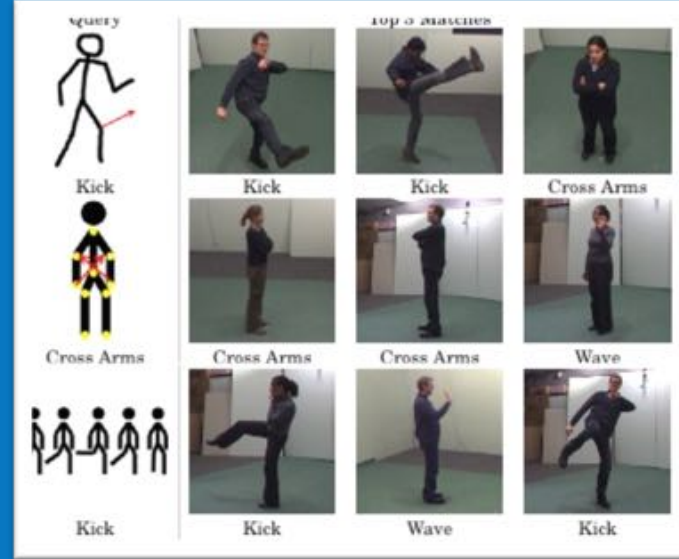
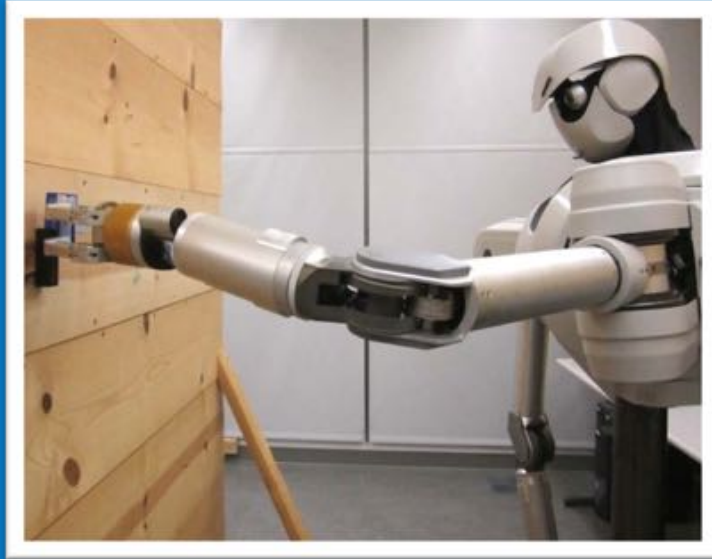
22
conferences

SIGCSE
due in Sept!

Papers & Posters

Top Tips

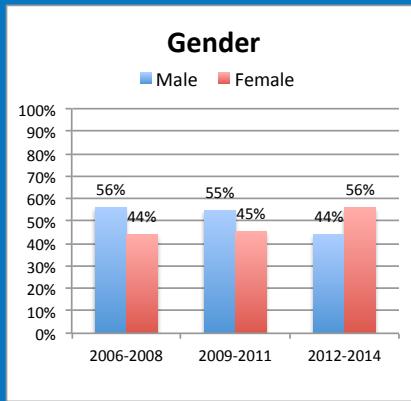
Encourage presentation at conferences – soon!
Set expectations for iterative review



Papers & Posters

Top Tips

Encourage GHC, SACNAS, Tapia, ACM presentation
Set expectations for iterative review
Reuse for NSF Highlights



| Measure | Pre | Post | P |
|-------------------------------|--------|--------------|------|
| Computing Efficacy | 3.5111 | 4.522 | .038 |
| Intent toward Graduate School | 3.886 | 4.145 | .089 |
| Computing Attitudes | 4.628 | 4.678 | .635 |
| Help-seeking/Coping Skills | 3.528 | 3.463 | .372 |
| Research Skills | 2.807 | 3.761 | .011 |

REU Site Dissemination Venues

Top Tips

Report your Site results

SIGCSE, Frontiers in Education, ASEE



3 tips to share; 3 top questions
5 minutes to write; 5 minutes to stick 'n' browse

Survey about this workshop
<http://bit.ly/newreupi2017>

Q&A
