STEM Drive Video v1.0.0

General:

(G1) We need captions enabled as Thao did on the real-time demo video:

<https://www.isip.piconepress.com/projects/nsf_pfi_tt/resources/videos/realtime_eeg_analysis/current/video_2.5.1.mp4>

(G2) Fonts and subtitles need improvement.

(G3) Color scheme needs to be brighter and “happier” – talk to Thao about this. No black backgrounds.

Specific:

**00:02 -> 00:05:**

The title page is weak and needs to look something like the real-time demo.

**00:05 -> 00:18**

We need better pictures of IEEE SPMB and better fonts/lettering. We

**Narration:** “In keeping with Temple University’s mission to create new knowledge through innovative teaching, research and other creative endeavors, one of NEDC’s most important goals is to provide a place where students can perform leading-edge research and grow to become disciplined and self-motivated engineers and scientists. Our center has hosted research experiences for students from high school to post-secondary education.”

**0:19 -> 00:24**

Need a better NEDC logo.

Drop RockSAT – it isn’t ours. Similarly, drop Lunabotics – it isn’t ours.

**Narration:** At Temple University, we believe research experiences for undergraduates broaden their horizons and academic strengths. The Institute for Signal and Information Processing and the Neural Engineering Data Consortium foster the development of advanced software and machine learning skills in its students by engaging them in research projects that involve real-world engineering problems of scale, promote teamwork, and expose them to a rigorous engineering design process.

**00:38 -> 00:58**

**Narration:** We believe research experiences are important because we equip students with marketable state of the art software skills. We work across a wide range of applications such as real time interpretation of physical signals such as speech, electroencephalograms and digital pathology images. We successfully attract students across a wide range of disciplines including engineering, medicine, the life sciences and business. We have always exceeded national averages for participation from underrepresented groups primarily because we spend a significant amount of time on the professional development of our students.

**00:59 -> 01:17**

**Narration:** We introduce students to the application of machine learning to large scale big data problems involving real world data and technology-hungry customers. Students participate in a strict software engineering process similar to that used in industry, so they develop highly marketable skills and gain experience with how to prosper after graduation.

(The modules animation is excellent!)

**01:17 -> 02:12**

Get Vineetha’s head more centered in the frame. If you use cell phone videos, maybe shrink them and move them to the left in a collage as they finish. Or start in a collage and pop open one of the images for the student speaking.

**Narration:** One of our currently graduating students: Vineetha Mathew, speaks on how this lab has impacted her life and where she will be going moving forward.

I first learned about the lab through a friend I knew who was working there and he was able to connect me to the current manager, into Dr. Picone to get me a position as an EEG annotator.

I definitely gained a lot of programming and EEG interpretation skills, but I think more importantly I was able to see the significance of collaboration and teamwork in research as well.

Currently I’m getting ready to start medical school in July at the Tufts University School of Medicine in Boston.

With the annotation team in particular, you develop a lot of life skills such as time management, report writing, collaborative decision making and team-based quality control. These skills will be very useful to me as a I enter medical school in the fall.

**2:12: -> 2:30**

Add two more interviews. Perhaps shorten Vineetha’s a bit. Add something from WE2 if you can.

2:30 -> 3:00

End of a slide like what Thao did for the realtime demo video. Show ISIP, NEDC and Biosignal.

**Narration:** The Institute for Signal and Information Processing (ISIP) has a multitude of projects that have affected people’s lives for the better. Not only have our students had the privilege to be a part of this wide-scale research, but they have gone on to be successful engineers with the skills they obtained here. For the last 40 years, ISIP has cultivated an environment where students can become disciplined and self-motivated engineers that have had a true impact on the community. We expose our students to many types of experiences including teaching, mentoring, research and outreach. We even give them a chance to experience life in a startup company, Biosignal Analytics Inc., a spinoff from NEDC’s research into automatic interpretation of seizure events.

For more information… (follow Thao’s final part of her video).