

Passion and Perseverance in Academia: Experience Sharing on Computer Information Systems Research

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My Background

- Education

- Ph.D. in MIS (minor: Computer Science), U. Arizona
- M.S. in ITM; B.B.A., Chinese U. of Hong Kong, Shatin, HK

- Scholarly Interest

- Design science, data analytics, social media analytics, cybersecurity, machine learning, knowledge mgmt., health informatics, HCI

- Experience

- Faculty member in computer information systems
- Editorial roles in academic journals and conferences
- Senior Member, AAAI/ACM/IEEE
- Professional Member: AIS/AAAS/AmStat/INFORMS

Have you ever felt highly excited about the start of a research project, but as time went on your excitement and motivation started to wane?

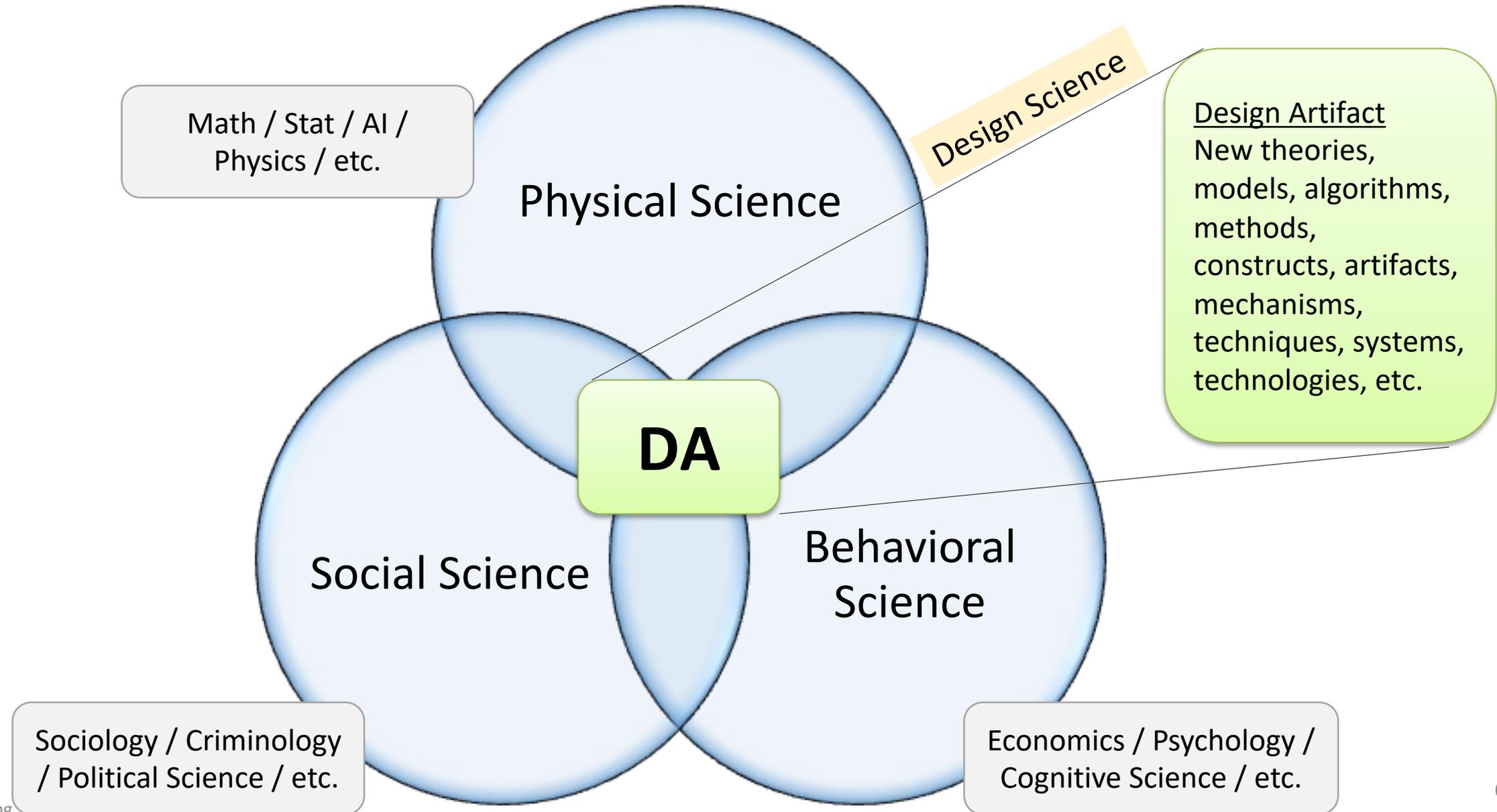
Academic Research Projects

- Structured, dedicated effort developed to produce intellectual outcomes
 - Usually take very much time
 - Substantive intellectual products,
 - e.g., software, patent, dissertation, peer-reviewed publication
- Despite much time and effort put into projects, people often remember only the last step you completed
 - Most recent moment (\neq most exciting moment)
 - Your supervisor, manager, senior authority
- Research projects often fail because researchers do not know and do not prepare enough for completing the very last step

The Psychology of Academic Evaluation

- Human tend to remember the most exciting and the ending of something far more clearly than any other part
- Why?
- Our brains can process only limited information!
- The Peak-End Rule: We remember or judge an experience based on how we felt at its peak and at its end
- My doctoral dissertation (completed many years ago!)
 - Initial excitement
 - Final publication
 - Shaping my research direction
 - E.g., Data analytics research

Data Analytics (DA) in CS/IS: A Design Science Approach



Why so few people finish strong?

- At a project start, you have a lot of momentum: energy is high, problem is challenging but interesting, members are excited.
- By project end,
 - Energy is low
 - Less elegant work becomes not fun to work on
 - Tasks are mundane
 - Our brains are then resistant to unrewarding tasks
- ***These tasks, if left undone, is like undoing all the exciting work you already put in since the project start.***

When people lose momentum on a project, it is usually right around the time the shiniest, most interesting work gets completed.

If you want to achieve a strong finish, you should keep the momentum up.

How?

Think big picture

- Goal and significance
- My DHS-funded project: Sentiment analysis of tweets on US immigration and border security
 - [UA BORDER: DHS Center of Excellence for US Border Security](#)
- Peak moment
- Sustaining the momentum
- Connecting with Experts and Students



Charting the Path from Peak to End

- Make the unglamorous a priority
 - Reframe “boring” stuff in your mind
- My experience in a State-funded cybersecurity project
 - Collaborated with faculty and students
 - Initial excitement and effort => “Peak” moment
 - Many iterations of developments and writing
- Tasks that still need to be done after the “peak”
 - Experiments and Data Analyses
 - Drafting, Writing, and Revising
 - Paper submission and revision
 - Handling all “obstacles” in a graceful manner

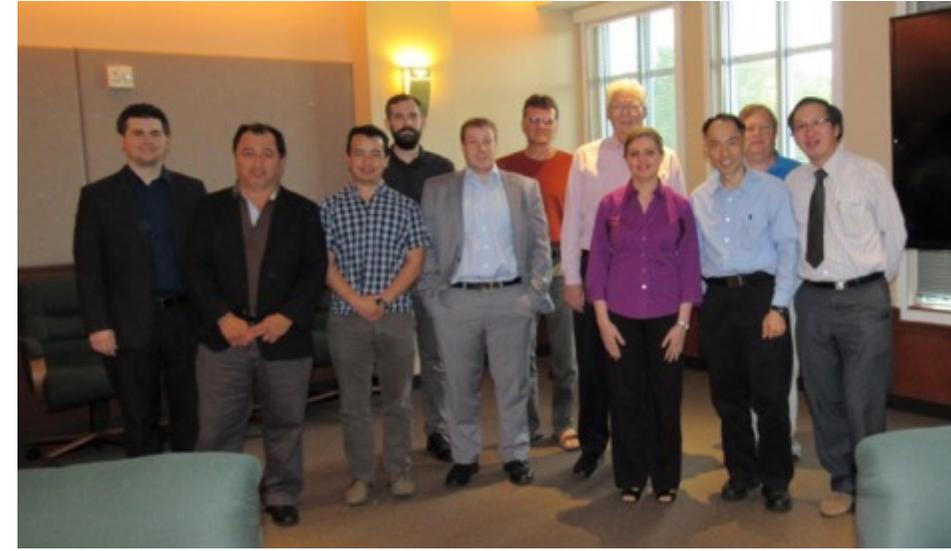
Preparing your mind, body, and environment

- If you work hard on a project, your effort will not be worth as much if you are not seen completing the project.
- So, follow through on every single step until you reach a great finish.
 - Get help from your team members, admin. staff, colleagues, students, etc.
- My experience in an NSF-funded project (<http://uttyler.us.to/wchung/rsch/cic>)
 - Community development and organizing national workshops
 - Great excitement when the crowds met and talked
 - More work on extended funding, coordination, and publications
 - Doing all the “unglamorous” work
- Preparing your mind, body, and environment to finish the project
 - Channel your ability to keep going

NSF LIKES Workshop hosted by
Dr. Chung (second from left)



Building New Communities



NSF Workshop on Curricular Developments for Computing in Context chaired by Dr. Chung (third from right)

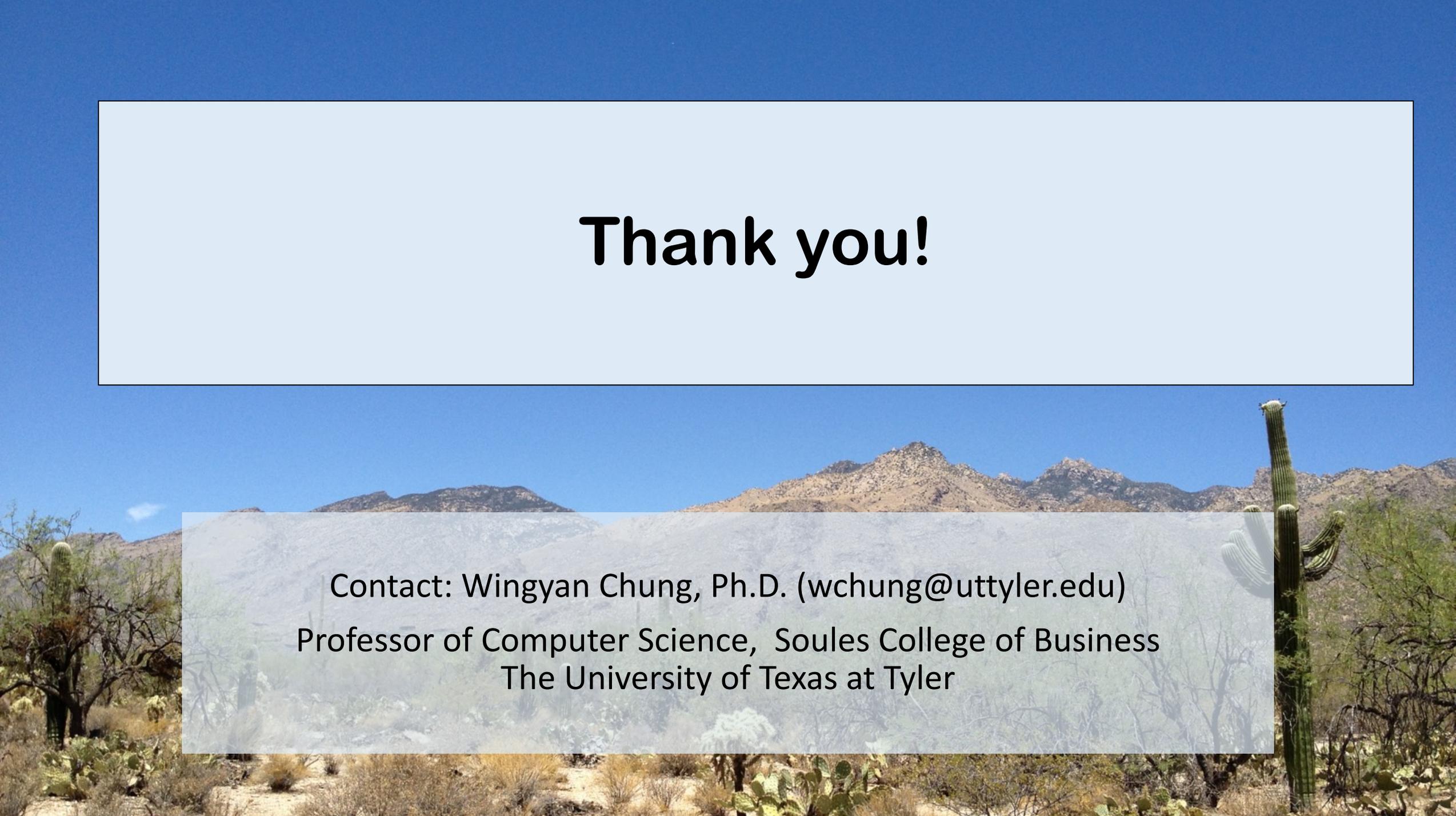


NSF LIKES PI Workshop at Greensboro
(Dr. Chung second from right)

Summary: Passion and Perseverance in Academia

1. Think big picture
 - Goal and project vision
 - Greater significance
 - Talk with your supervisor / manager
 - Connect with experts and students
2. Charting the path from peak to end
 - Reframe “boring” stuff in your mind
 - Make the unglamorous a priority
3. Preparing your mind, your body, and your environment
 - Channel your ability to keep going
 - Follow through on **every single step** until you reach a great finish

How will you achieve your “great finish”?

A desert landscape with mountains and cacti under a blue sky. The scene is bright and clear, with a prominent Saguaro cactus on the right side. The mountains in the background are rugged and brownish, contrasting with the deep blue sky.

Thank you!

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