A little about me

• Associate Prof. in the CS Dept.
• Grew up in Northern California in Donner Party country
  – If you can't understand my spoken English, let me know. It's not your fault!
• Undergrad from Embry-Riddle Aeronautical University in Prescott, AZ, Ph.D. from U.C. Davis
• General research area is Internet freedom
  – Background in computer architecture
  – Also have done research in operating systems and computer networks
• I can plausibly deny any rumors you may have heard about me
The Kraken
https://netalert.me
Weibo (wukan= 乌坎   niaokan= 鸟坎)
Are you as excited as me?

- Knowing how the Internet works today is like being a printer in Ben Franklin's time
  - Political empowerment, lots of cool science to be done, fat stacks of cash, etc.!
- This is my second favorite class to teach
- It's going to be the best networking class ever offered, ever. The best!
Empowerment

• Have you ever fantasized about being a Jedi, a wizard, a ninja, a pirate, etc.?

• You should think about how you hope to be empowered this semester.
Some administrative stuff...

- Course website (and syllabus) are easy to find
- My office is in CARC
- Prereqs?
- Do we have a TA?
- No required textbooks
- ADA
- Title IX
  - TAs, GAs, and faculty are “responsible employees”
  - “Responsible employees” must report
  - Lots of campus resources I can help direct you to
Grading

- 60% for five labs, 20% for each of two midterms
- Labs will be the meat of the class, exams just a sanity check for me
- Homeworks will be assigned, but not turned in or graded
- Details in syllabus
- You losing your visa status or scholarship is not my problem
Cheating and collaboration

• Read the syllabus, this slide is not authoritative
• Do your own work
• When in doubt, ask
• In group assignments, don't do all the work yourself
• “If you're not cheating, you're not trying” applies only when I teach 444/544, not this class
My expectations of you

• Be studious
• Take responsibility for your own learning
• Take responsibility for others' learning
  – I have a tendency to be wrong, be misinformed, lie, and so on, hold me to the “show me” standard
  – One person talking at a time
• Do only excellent work
• Show leadership and be a mentor
Course philosophy

• We'll focus on the fundamentals of computer networking, and learn them well through labs
  - We'll stick to very simple things, but do such a good job of becoming familiar with them that you'll remember them for years
  - We'll touch on advanced topics, but not cover them in the way this class would if it were taught by someone whose research interests were different from mine

• Creativity is fundamentally a playful act, and learning something well is a creative process
Material to be covered

• Ethernet, ARP, IP, TCP/UDP, HTTP, HTTPS, etc.
  – *i.e.*, things that are key to understanding the Internet

• Cryptography and network security

• Also
  – Societal impact
Hack the Planet!