Lecture 1

Introduction + Logistics + Prefix-free Codes

Course Elements

- Lectures
  - In-person. Tue & Thu 4:30-5:50 pm in STLC 118.
- Office Hours
  - See course website
- Short Quizzes
- Homeworks
- Project

Prerequisites

- Basic probability (EE178 or equivalent)
- Programming (CS106B or equivalent)
  - we will use Python in this class
- Not required: Information Theory (EE 276) - we will cover the relevant concepts
- Talk to us if you are unsure!

Useful links

- Course webpage: https://stanforddatacompressionclass.github.io/Fall22/
- Ed: https://edstem.org/us/courses/29704/
  - For doubts, general discussion
- Gradescope: https://www.gradescope.com/courses/436519
  - For quizzes, homework submissions
- Staff mailing list: ee274-aut2223-staff@lists.stanford.edu
- IT-forum: https://web.stanford.edu/group/it-forum/talks/ - join mailing list
- Stanford Compression Library - https://github.com/kedartatwawadi/stanford_compression_library/

Lectures

- **Lectures**: In-person. Tue & Thu 4:30-5:50 pm in STLC 118.
- **Lecture notes & Resources:** on course website
- **Lecture recordings**

Short Quizzes

- On Gradescope
- After every lecture, due before next
- Take just 5-10 minutes

Homeworks

- 3 homeworks (+ homework 0 to get you set up!)
- released roughly every 2-3 weeks
- both theoretical/conceptual and programming problems
- Homework 0 released this Thursday, due next Thursday

Project

- Dive into compression algorithms/techniques or analyses beyond the topics covered in class
- Include a significant implementation component and a writeup (blog/wiki/report)
- Contribute to the Stanford Compression Library!
- Project Elements
  - Proposal: due week 6
  - Milestone: due week 9
  - Report + Presentation: due exam week

Grading

- Homeworks: 65% [$20\% \times 3 + 5\%$]
- Project: 30%
  - Proposal - 5%
  - Milestone - 5%
  - Final Report/Code - 15%
  - Final Presentation - 5%
- Quizzes: 5%
- *Bonus* class/Ed participation: upto 5%

Questions?