Course Intro and Overview

CS 115 Computing for the Socio-Techno Web
Instructor: Brian Brubach
Hello in there...

• Let’s just take a moment to check in and work out the technical kinks
• How are you doing?
My educational background

• First degree was in filmmaking
  • Focus on cinematography and screenwriting/sketch writing
• Worked as freelance cameraperson and teaching artist
• Went back to school for computer science to be a programmer
  • Had taken some intro programming in the past (like this course)
• Fell in love with algorithms research and went to grad school
• Just finished my PhD at The University of Maryland this summer
My research

• **Algorithms and theoretical computer science**  
  • Exploring the theoretical limits of problem solving and computation  
  • Designing algorithms with provable performance

• **Fairness in automated systems and mechanism design**  
  • Addressing bias in machine learning and artificial intelligence  
  • Design fairer approaches to solving foundational problems  
  • Elections and gerrymandering  
  • Rights provided by innovation

• **Bioinformatics**  
  • Tools and methods for analyzing genomic data  
  • Focus on metagenomics and bacterial genomes
Pre-course survey

• Roughly half of you have some programming experience
  • Python, R, or Java
  • Scratch, block
• The other half have no programming experience
• Majors (Oops!)
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Reasons for taking the course

- Interest in CS or MAS as a major
- Fulfill requirement without taking a math course
- Learn coding/basic programming
- Understand computers better
- Learn about computers and society
- Get knowledge to interact responsibly with the web
- Understand benefits and dangers of tech
- Understand how CS shapes society/self
Topics of interest

• Privacy
• Social media
• Chinese firewall, virtual private networks (VPNs), internet censorship
• Job loss to automation
• Children and tech/social media
• Ethics and government regulation in tech
• Dark web
• Surveillance
• User interface and user experience design (UI/UX)
• COVID
Logistics overview

• Course website
  • http://cs.wellesley.edu/~cs115/
  • Check calendar regularly

• Laptop/mobile device use in class
General advice for learning to program

• Don’t wait to start projects.
  • If you’re stuck, go to bed and try again tomorrow
• Backup and save often
• Leverage your interests
  • Learn by making a web app for something you like that excites you
• Play and experiment
Software for the course

• Chrome web browser
  • Web page performance can differ with browsers
  • Assignments will be graded based on Chrome performance

• Atom text editor
  • You may use any text editor you like
  • This is the one TAs will support

• Cyberduck file transfer
  • It is free, but you can also buy/donate
  • Use others if you like (e.g., fetch)
  • This is the one TAs will support
Reminders

• Check the webpage calendar to prepare for classes
• Get a CS 115 account
• Install Cyberduck
• Install Atom
• Start readings and social implications work for Thursday