

CS253: Software Development

Welcome to Lecture 1!

Daniel George

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Daniel George

- IWU BA '09, Stanford MS CS candidate '24
 - Studied Artificial Intelligence and Systems
- Software Engineer at Microsoft Research, reddit, Disney
- From Schaumburg, Illinois
- 1 dog (Grizzly) and 3 cats (Pancho, Lefty, and Lemon)



Let's get to know each other!

- Name (and pronouns if you're comfortable)
- Where you're from
- Year + (prospective) major
- Pick one (or more!)
 - What is one hobby you want to pick up?
 - What is your strangest habit?
 - What is something fun you did this summer?
 - Anything else you would like to share 😊



What is CS253 about?

Software Development

Software development is the process of designing, creating, testing, and maintaining computer programs and applications.

Software Engineering

Software development is a systematic and disciplined approach to designing, creating, testing, and maintaining computer programs and applications.

Why does CS253 matter?

Let's begin with a scenario.

Point 1:

Great software development means paying attention to both the details and also the “big picture”.



One more example.

Point 2:

Great software development comes from a place of insatiable curiosity. Always be questioning “why”.



Why is one program better than another?

Roadmap

Unit Tests

Roadmap

Object-Oriented
Programming

Unit Tests

Roadmap

Object-Oriented
Programming

Unit Tests

Intro to
Networking

Roadmap

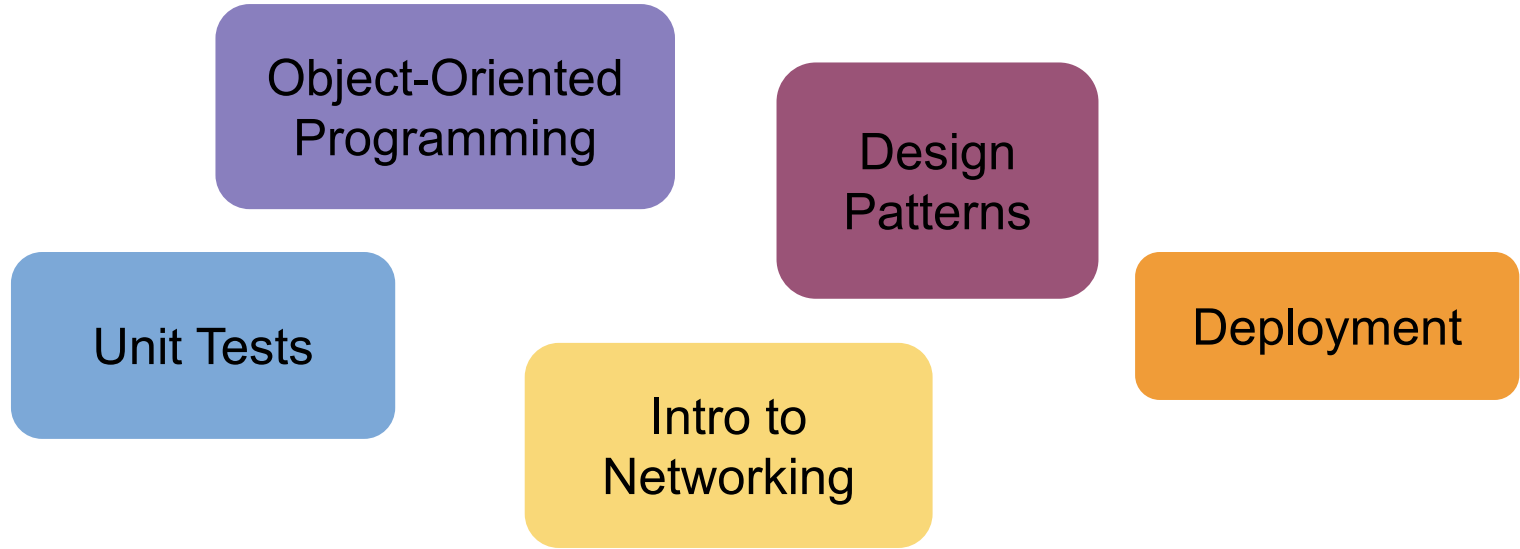
Object-Oriented
Programming

Design
Patterns

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Roadmap

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Programming

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Intro to
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Debugging

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Debugging

Technical
Writing

Class Norms

- You
 - Celebrate everyone's learning
 - Don't shame others
 - You are NOT competing
 - Learning includes struggling
- Be actively engaged

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- Me

- Prioritize your well-being
- Provide you with as many resources as possible
- Value your feedback



Course Mechanics

Lecture and Attendance

- TTh from 9:25am-10:40am
- I will record lectures, but please don't rely on that
- I want you to feel encouraged and to come to class!

Assignments and Exams

- I'm still working out exactly how assignments will be scheduled and graded, but here's the general idea:
 - There will be (un-graded) readings with each lecture
 - A sizeable chunk of class time will be reserved for working on practical examples
 - There will NOT be a midterm or a final exam for this class but there WILL be a final project
 - This IS a writing-intensive class, so expect that a significant portion of the class work will focus on technical writing (such as API documentation, user manuals, etc.)

Getting Help

- I will have virtual office hours twice a week, most likely WF, for a couple of hours each day
- Additionally, I will be available via email and also via Piazza
- I encourage everyone to help answer questions via Piazza!
- We have an excellent TA, Anna, who will be helping us this semester as well

A Note About Plagiarism

- You cannot plagiarize another person's work
 - This includes copying code significant snippets from online resources, such as Stackoverflow
 - It is OK to ask Stackoverflow how to iterate a Python list
 - Is NOT OK to ask ChatGPT to write you an entire program
 - Use your best judgment and if in doubt, you have an open invitation to ask! 😊
- You cannot share your solutions with anyone except course staff (but you ARE allowed to talk about your solutions with other students, making sure that you include citations where appropriate)
- You should cite any non-staff collaboration in your submissions

Assignment 0

- For today: we will turn to a small writing assignment regarding software development.



Thank you!