

# Activating Your UI

17-316/616 Fall 2025

AI Tools for Software Development

<https://ai-developer-tools.github.io>

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# Today

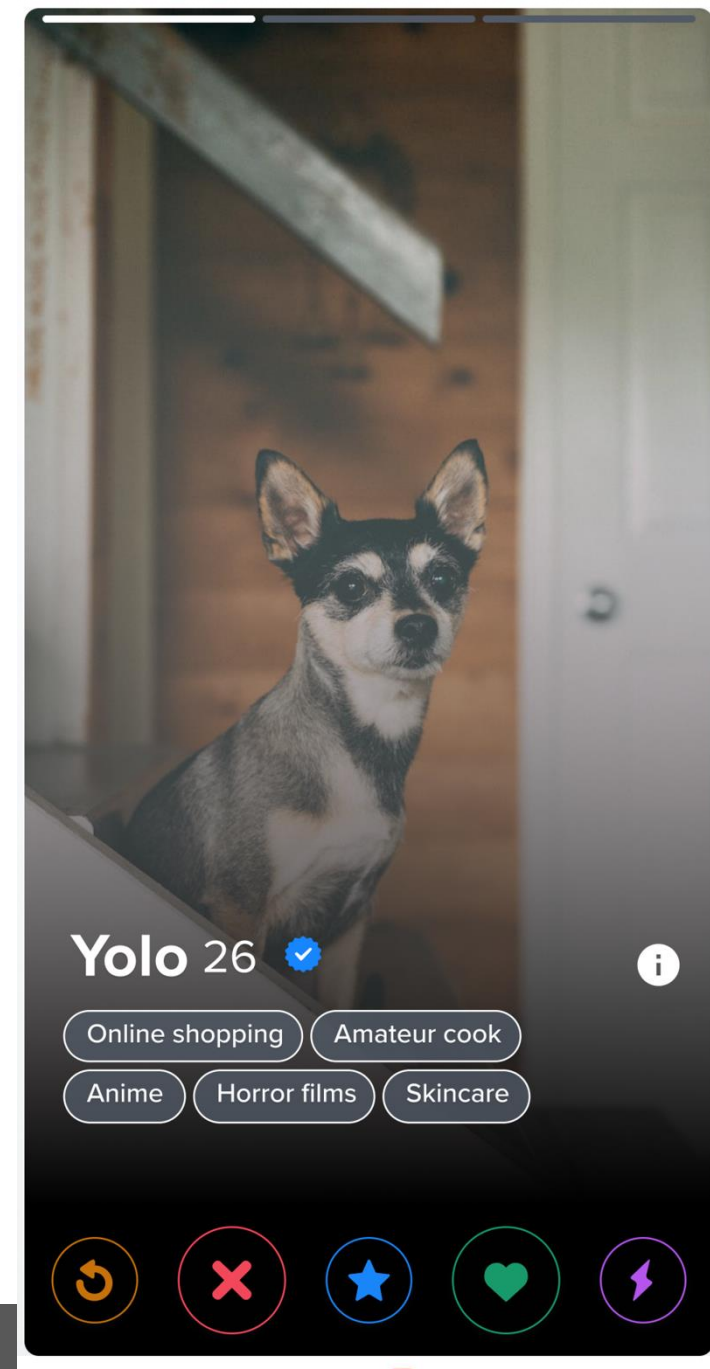
- Project Team Meeting
  - LLM Prompt Templates
  - UI Event Handlers
  - Code Review via LLM
- 
- Also, HW3: Reflection essay is now 400-550 words.

# Project Team Meeting

- Spend the next 15 minutes to meet with your team.
- Work on P3: Frontend Development.
- P3 deadline extended to Sunday Oct 5, 11:59pm

# Let's make Tinder with Cursor

- Clone the code from <https://github.com/AI-Developer-Tools/ai-tinder>



# Javascript Event Handling

```
<button onClick={() => handleAction('my-button-action')} ...>  
</button>
```

```
const handleAction = (action) => {  
  setTimeout(() => {  
    switch (action) {  
      case 'my-button-action':  
        ...  
        break;  
    }  
  }, 500);  
};
```

# LLM Prompt Templates

- Ensure reproducible LLMs interactions

You are a <role>.

Your goal is to <task>.

Instructions:

- Analyze <something> for <purpose>
- Identify specific issues and explain each.
- Suggest concrete changes or alternate approaches to address the issues
- The response should be formatted as a list of findings.

...

Analysis Focus: <purpose>

...

Code: <code>

# Frontend Developer Template

You are a frontend developer.

Your goal is to add event handlers for common user interface tasks in this frontend code.

Instructions:

- Analyze the existing frontend code for UI elements that should respond to user input but have no event handlers.
- Identify specific issues and explain each.
- Suggest concrete changes or alternate approaches to address the issues.
- The response should be formatted as a list of findings.

```\n

Analysis Focus: Find UI elements that lack sufficient UI event handlers.

```\n

Code: The frontend code in the project directory.

# Mobbing Activity

Join Zoom to see the screen better!

- Mobber will come to the hot seat.
- Notetaker sits in the front of the class with their laptop to take notes in the #mobbing channel.
- Let's write the UI event handler code for Tinder.
  - Swipe left - Reject
  - Swipe right - Like
  - Swipe up – Super like
  - Double-tap – Look at the other photos in the profile
  - Also, power the action buttons at the bottom.
- Everyone tell the mobber what to say to ChatGPT to get it to create our Tinder frontend.



# Code Review

- The LLM just wrote a ton of code.
- But seriously, who wants to read all that?
- Our senior devs ask us:
  - Does this code do what it claims?
  - Are there any programming bugs?
  - Are there any design bugs?
- Can the LLM help us review the code?

# Mobbing: LLM role-based code review

- Let's swap the mobber and notetaker.
- Try out these prompts!
  - You are an architect. What is the purpose of this code? Explain the high-level structure and any design patterns used.
  - You are a developer concerned about performance. Show me the performance bottlenecks.
  - You are a tester. Show me where all the test cases are. What parts of the code need more tests?
  - You are a security analyst. Tell me where the code needs to be hardened further against adversaries.

# We forgot to look for bugs!

- Prompt: You are a developer concerned about bugs. Create a checklist to check for common mistakes in our frontend code. Be sure it includes checks for standards compliance with WCAG and ARIA.
- Prompt: Great checklist. Now verify our code against this checklist and tell me what you found.
- Prompt: For each problem you found, suggest a bug fix. If I think it's good, I'll ask you to apply the fix.

# Next class

- Frontend Development Reflection Discussion