

Welcome to 15-113!

15-113 – Monday 8/24

Who am I?

- Mike Taylor, Assistant Teaching Prof, CSD (mdtaylor@andrew.cmu.edu)
- Been teaching 15-112 since forever (Fall 2018)
- Created 15-113 last semester (Spring 2026)
- Came to CMU as a Robotics grad student in 2010, never left
- I like collecting old stuff, making things with my hands, playing synths, and reading about weird animals



Let's jump in and attempt to make Zelda

- Maybe we don't need to know anything. Maybe AI can just do it all now. Who knows?
- I like Zelda. Let's ask AI to make a really cool Zelda game, and we'll let it chew on that task while we discuss other things.
- If it succeeds at making a genuinely fun game in one prompt without any real thought on our part... well gosh, let's just all go home.

The Student Dilemma of 2025 and Beyond

- AI is advancing extremely rapidly and is the focus of so much industry and research
- Employers now demand AI expertise, but you can't responsibly create production-ready code with AI alone. You have to master fundamental concepts and problem-solving skills *and* AI.
- Improperly using AI in your fundamental courses will *obliterate* your ability to learn, so where does AI fit into your education?

The Student Dilemma of 2025 and Beyond

- While this will hopefully improve soon, the job market simply isn't great right now...
- To stand out, you need:
 - Fundamental knowledge and well-honed problem-solving skills
 - Experience with incorporating AI into your workflow efficiently and responsibly
 - Interesting projects and experiences

15-113 is meant to be...

- ...a playground for exploring AI in a low-risk setting
- ...a collective effort to discover best practices for AI use
- ...an opportunity to build open-ended projects that set you apart
- ...a place to share experiences from your peers, other faculty, and recent graduates in industry
- ...a way to directly prepare you for your future career opportunities

Plus...

- 15-113 is also a rare opportunity for *you* to help build a course
- AI moves faster than one person can keep up with, but *50 of us* can explore in 50 different directions
- What you find will steer the course this semester and in the future
- **Your curiosity and willingness to try new things is what makes this course a wonderful experience**

What you can expect to gain

By the end of the course, you should have:

- The ability to effectively combine your problem-solving and programming skills with current-generation AI tools
- Strategies for rapidly evaluating new tools and tech developments as they emerge
- A well-informed understanding of the impacts of modern generative AI, and a personal model for what responsible use means to you
- A web-based portfolio of work that you can add to throughout your career

Meet our TAs!



Taha
(tshakeel)



Nazanin
(nghazi)



Jack
(jacky2)



Michelle
(mzj)



Alex
(alexche3)

A giant caution for your other classes!

- You MUST learn the fundamentals. You MUST learn to effectively problem-solve without AI. Industry leaders from Microsoft, Google, and beyond are *begging* you.
- I've watched AI overuse ruin hundreds of students in 15-112, and 15-122 has gathered reliable data that correlates each improper use of AI on assignments with lower exam grades
- Follow every course's AI policy, please, for your own good. These policies are never meant to be arbitrary.

But I'm not too worried, because...

- Research from the Journal of Marketing indicates an inverse relationship between AI literacy and AI adoption: The more you understand it, the less likely you are to immediately reach for it
 - [“Lower Artificial Intelligence Literacy Predicts Greater AI Receptivity”](#), Stephanie M. Tully et al, Journal of Marketing
- Better AI literacy means you can stop viewing AI as magic
- After this course, you'll be more aware of its capabilities, limitations, and costs (both tangible and intangible)

The 15-113 and 15-114 mini split

- We split the course because of demand from students who do not plan to take 15-112 but would still benefit from learning to create code with AI
- Last semester required 15-112, but we let in a few exceptions who had not cleared the 15-112 prerequisite as an experiment, and we saw that they generally succeeded in the first half of the semester.
- The split into 113 and 114 allows for two main paths:
 - 113 requires 110. Here you'll create your portfolio and begin to populate it with 4 or 5 cool projects involving games, APIs, and webpages
 - 114 requires 113 and 112, and provides a deeper technical experience that exposes you to databases, backend dev, phone apps, and sophisticated agents.

This is still a new course, in a new configuration

- Almost all plans are subject to change
- We're very open to feedback! Tell us what you want to learn and we'll do our best to make it happen
- Like what you see? Peer pressure invite your friends to join in! We have some space left, and they only need 15-110-level experience for Mini 1, and 15-112-level experience for Mini1+Mini2

Breakout: Talk with your neighbors

- First then their name and why they're taking the course. Fill this out to let us know! <https://tinyurl.com/eysswsp7>



Take a moment to really stare this down



Course Website:

<https://www.cs.cmu.edu/~113/>

Take note of:

- Ed and Office Hours
- Grade distribution
- Schedule
- Academic Integrity

Be aware of HW1 and Project1!

(Project 1 will be linked on Wednesday)

Discussion

Break up into small (4-6 person) groups and discuss the following questions. Be ready to report back!

1. What is “vibe coding?” If someone says they vibe coded something, how do you interpret that, and how do you feel about what they made?
2. Without additional context, “AI” is a *very* broad term. We should try to find a definition for what it means in the context of this class. What should it include or not include?

Let's check in on Zelda if we haven't already

What did we get? This part's genuinely unpredictable.

Let's make a website

15-113 – Wednesday 8/26

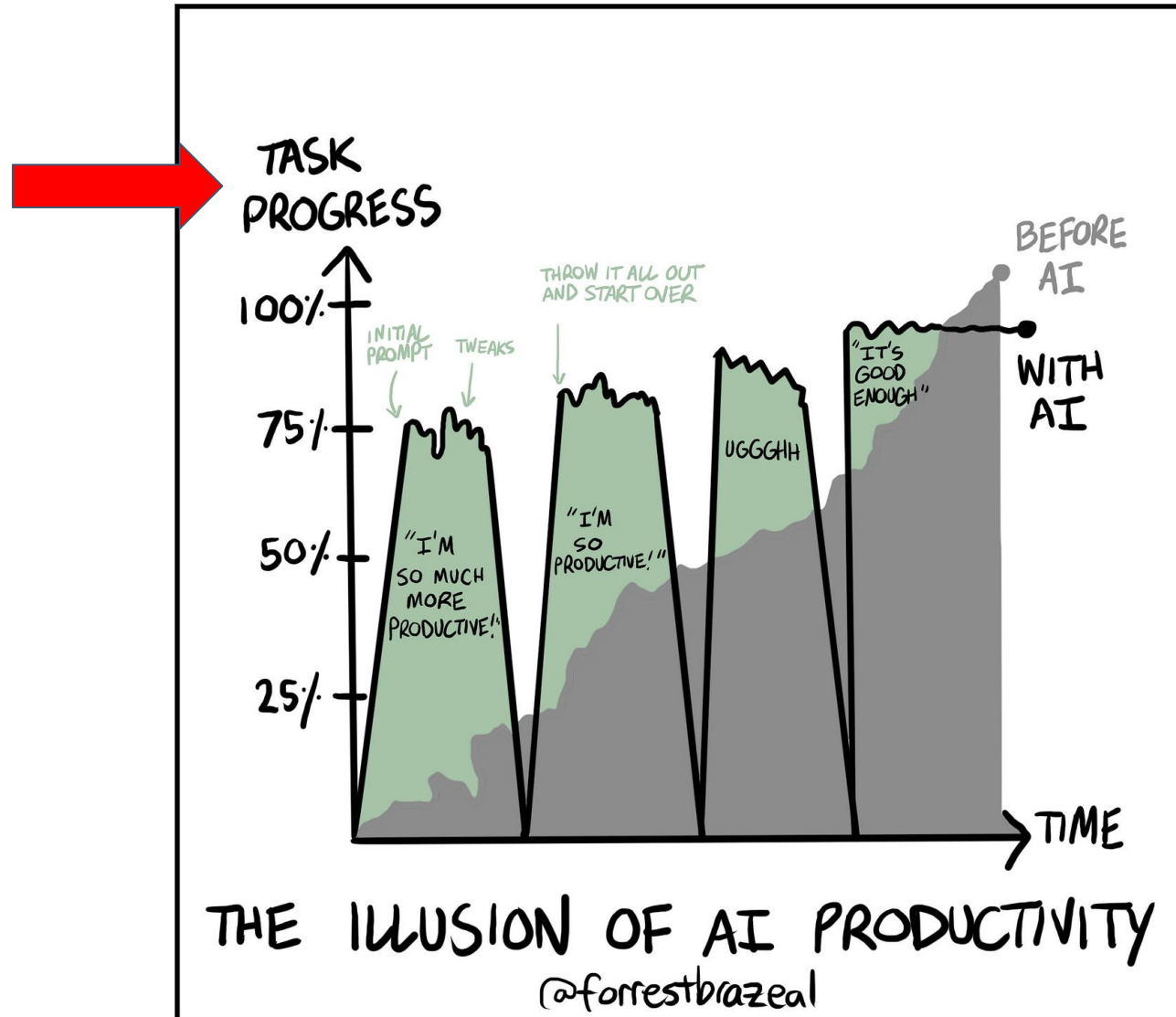
Picking up where we left off: Zelda

Thoughts on the Zelda experiment

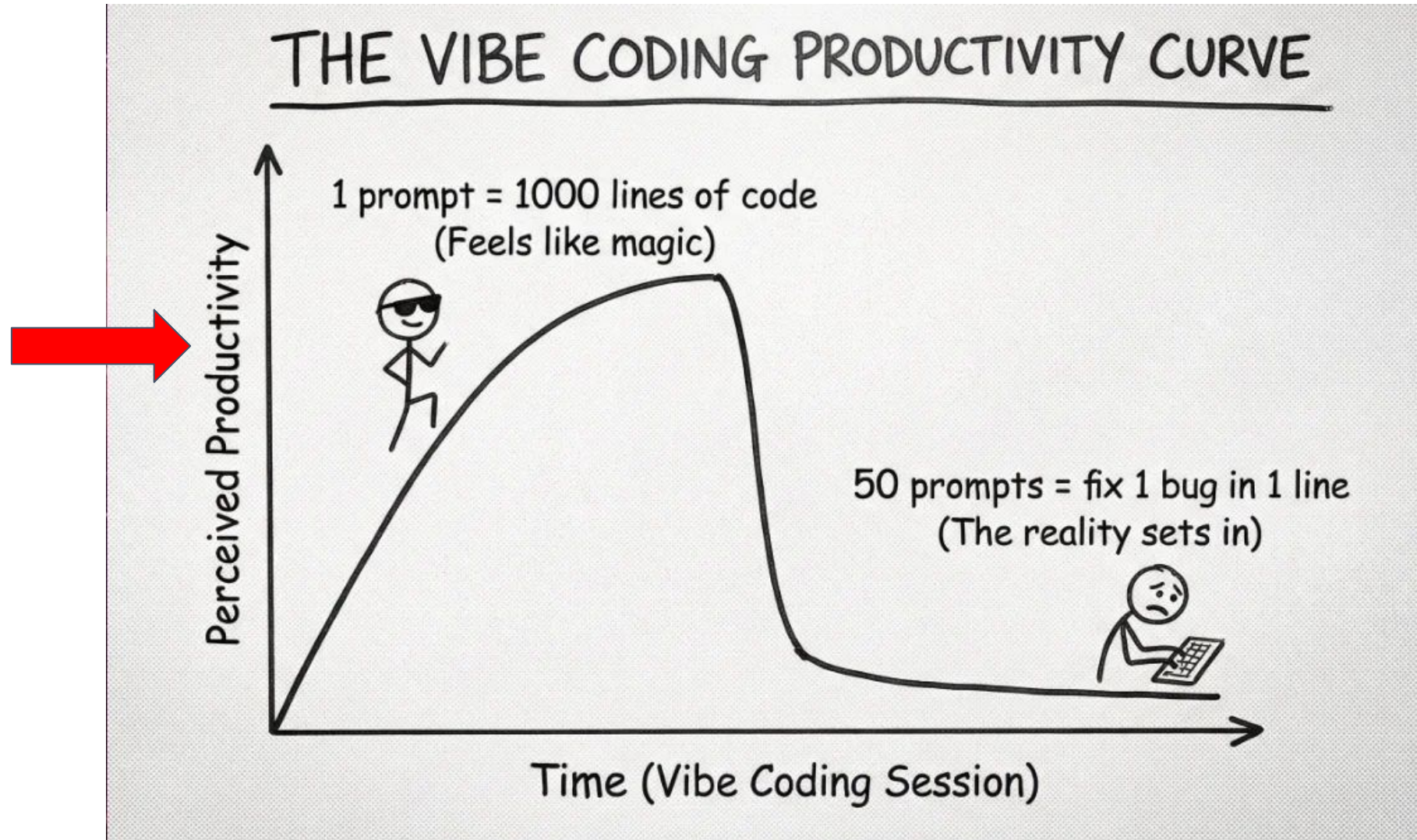
-

Image search for “AI time vs output plot”

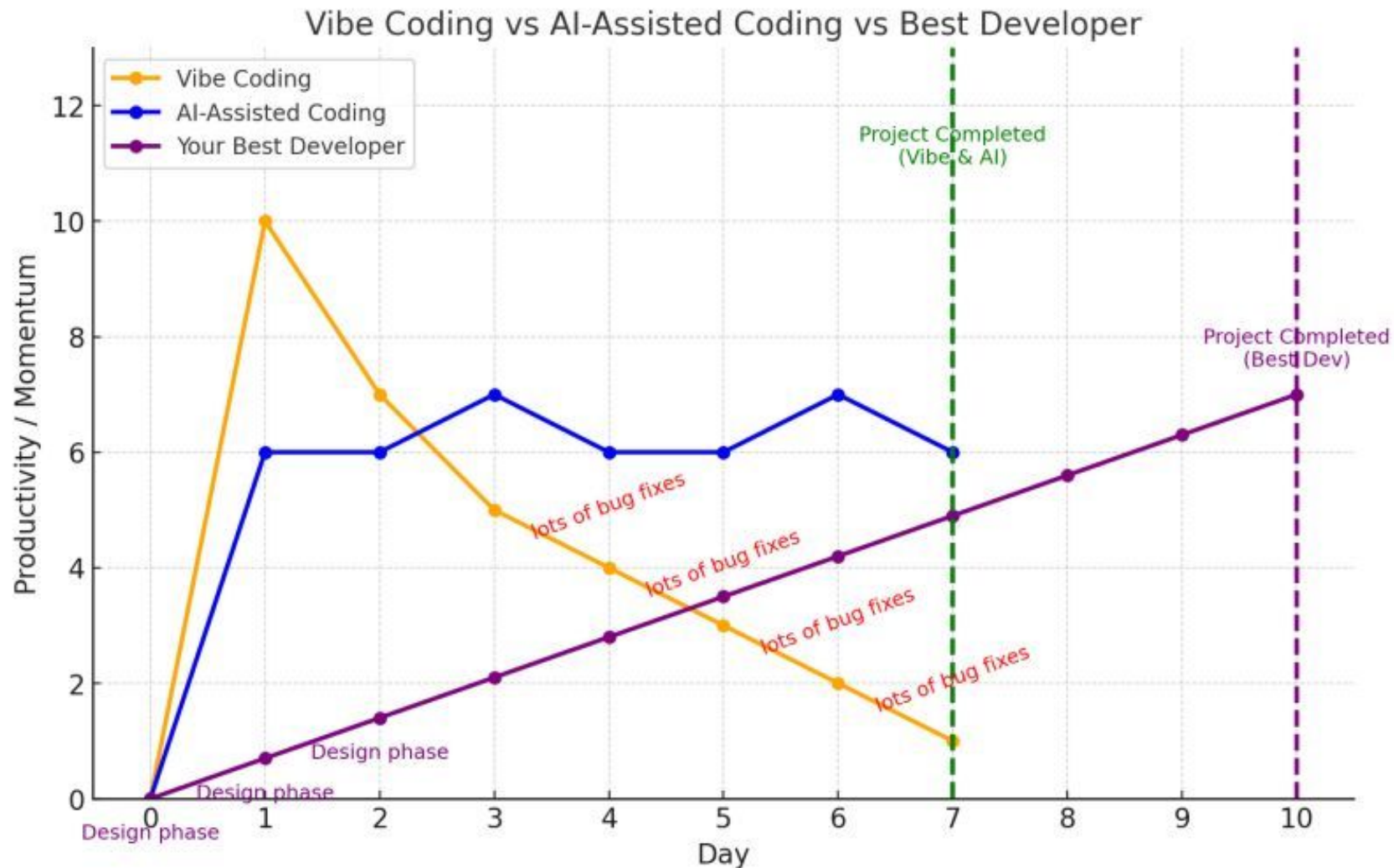
Note that some of these plot progress, others plot productivity (i.e. rate of progress)



A more pessimistic view



This one suggests a third option



Breakout: Talk with your neighbors

- Talk with each other about what you think the graph should look like. You can use the blackboard if you want. Then fill this out!
TBD

On to websites

- (We *will* come back to Zelda and Python, but later)
- Websites are “easier” to make work because usually they don’t break in their entirety
- Three components you’ll commonly find:
 - **HTML:** The **contents and structure** of a webpage
 - **CSS:** The **visual style** of webpage elements
 - **Javascript:** The **behavior** of the webpage (i.e. animated elements, dynamic features etc.)

What's our suggested approach?

- Websites need to be hosted somewhere. Let's use [Github Pages](#)
- HTML is pretty easy to modify, rearrange, and pattern-match. If AI gives us a start with placeholder content, we can replace it with our own
- Let's let AI mostly handle the CSS and basic Javascript by describing our desired appearance and behavior

Quick Github demo

(Read [project1](#) and go to OH if you'd like help!)

“Make a 15-112 fan page that appeals to Gen Z”

<https://mtaylor-create.github.io/>

15-112

Fundamentals of Programming & Computer Science

📖 Python Supremacy

🔥 No Cap

⚡ Big Brain Energy

🎮 Main Character Course

∞

PROJECT IDEAS

3AM

AVERAGE OH TIME

100%

WORTH IT

Real Talk from Students

"walked in not knowing how to code, walked out with a fully functional game. 15-112 different fr"

— sophomore who changed majors



Community Vibes

OH (office hours) culture is immaculate. TAs are actually helpful and the Discord is always poppin' at 2am when you're questioning your life choices.

Chat is this cringe

- Ok, so we're not going to use that to increase 15-112 enrollment.
- ...and there's very little actual information on that page
- ...*but* it really doesn't look half bad. Or at least, it certainly has a *distinctive* look. We could use this as a starting point.

Breakout: Talk with your neighbors

- <https://tinyurl.com/y28b8kvr>



Demo: Make a website, make a change, and get it on Pages

Suggestions

- Attach your resume to your prompt! The content may not be well-written, but it'll make for a good start
- Be descriptive in your prompts, and ask for the most important features first
- Iterate until you get something that looks and feels about right, then update the content
- Regularly check how things look, and keep an eye out for bugs!
- Github Pages will only rebuild about 10 times per hour, so (for this project) commit when you want to save your progress, and push when you're done for the day and want to publish

w3schools.com has good HTML examples

- Add an image:
 - ``
 - Make sure to include the picture in your github repository, and change src to be a relative path to that file
- Add a link:
 - `<a href="https://www.w3schools.com">This is a link</a>`
 - The path can be a full URL or a relative path to another .html file or item in your github repository
- More: https://www.w3schools.com/html/html_basic.asp

For just this assignment, we recommend *starting* by using AI in the browser (e.g. chatgpt.com or gemini.google.com)

We'll show you how to use AI in an IDE very soon, but it's useful to understand the tedium of moving context in and out of the browser.

Go forth and make cool stuff
