

The background features a dark blue and black color scheme with a white line graph on the left side. The graph has four data points connected by lines, with the second point from the left being the lowest. A numerical value '289.33' is displayed next to the third data point. The overall aesthetic is technical and futuristic, with various lines and grid patterns.

Intro to Computer Science Research

MICHAEL A. HEROUX

Tactical Goals

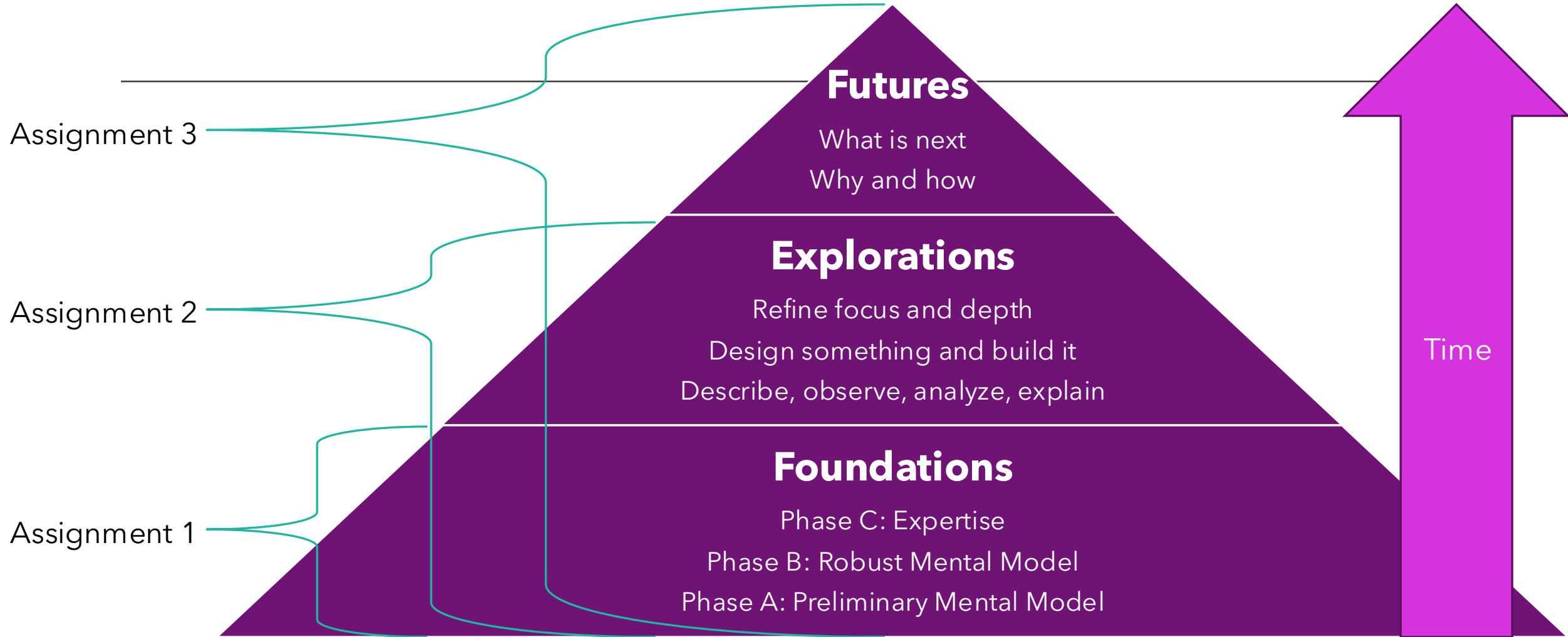
Complete a State-of-the-Field Project

- At the end of the course: Paper, presentation, demo, and dialogue on a topic:
 - Foundations
 - Explorations
 - Futures

Learn approaches for technical topic

- Finding content
- Collaborating
- Discussing
- Writing
- Presenting

State of the Field Components



Strategic Goals

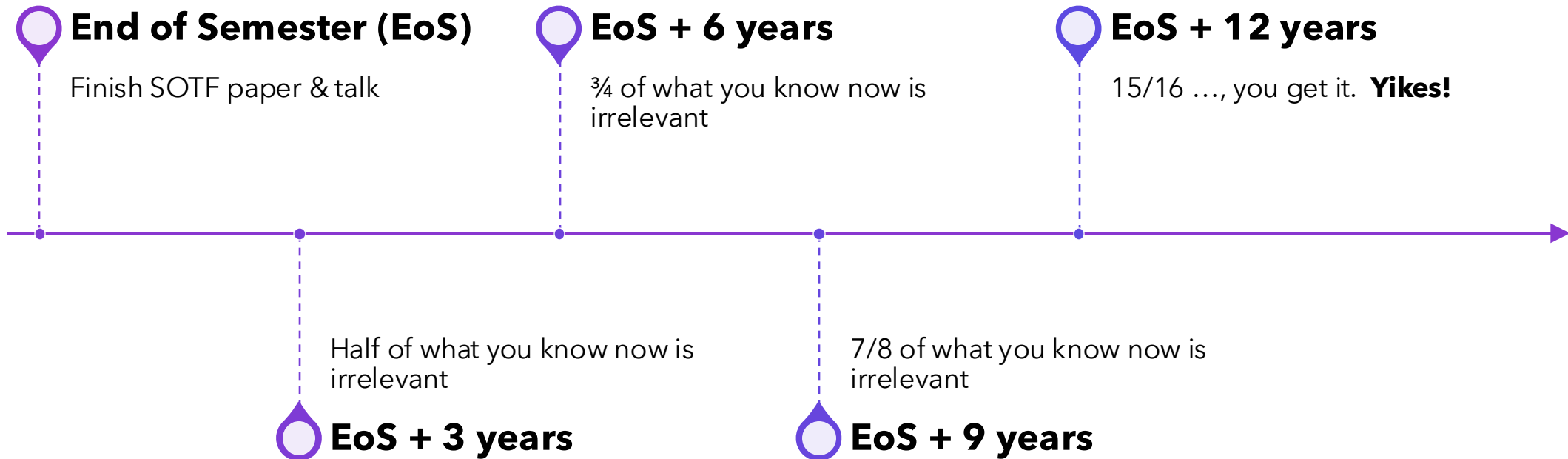
Prepare for professional computing life

- Sustained learning skills and habits
- Presence in the virtual world
- Collaborative approach to life
- **I am ready for change**

Cultivate a growth mindset

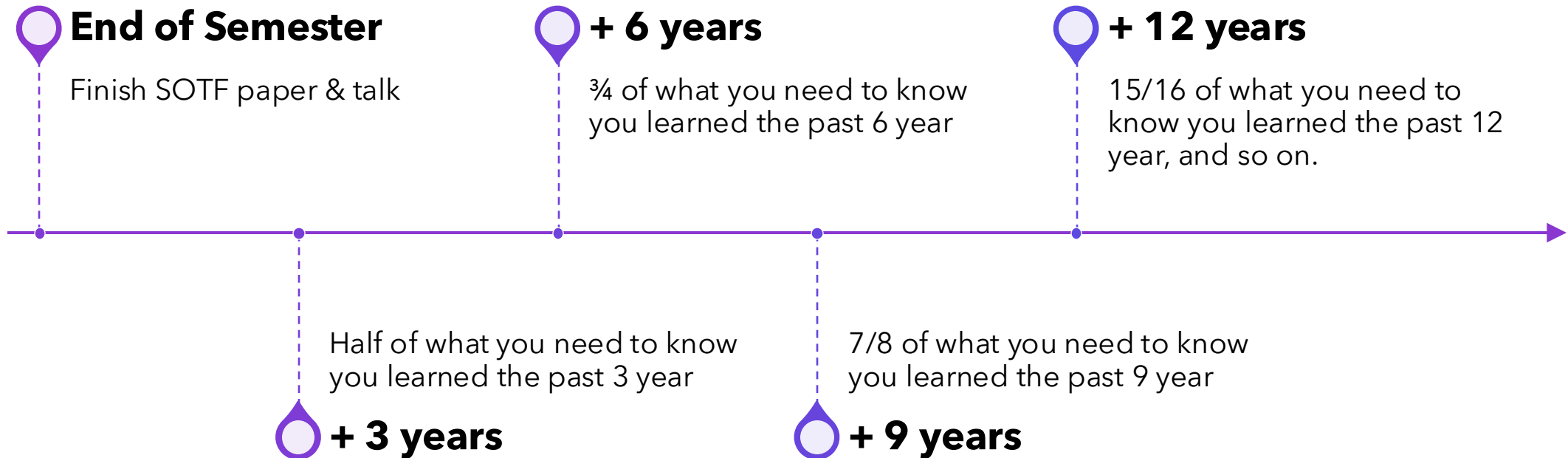
- Execute today's ideas & invest in new ideas
- Do today's job & prepare for next one
- Collaborate today with colleagues & increase your existing network
- **I am a learner**

Timeline: CS Knowledge "half life"

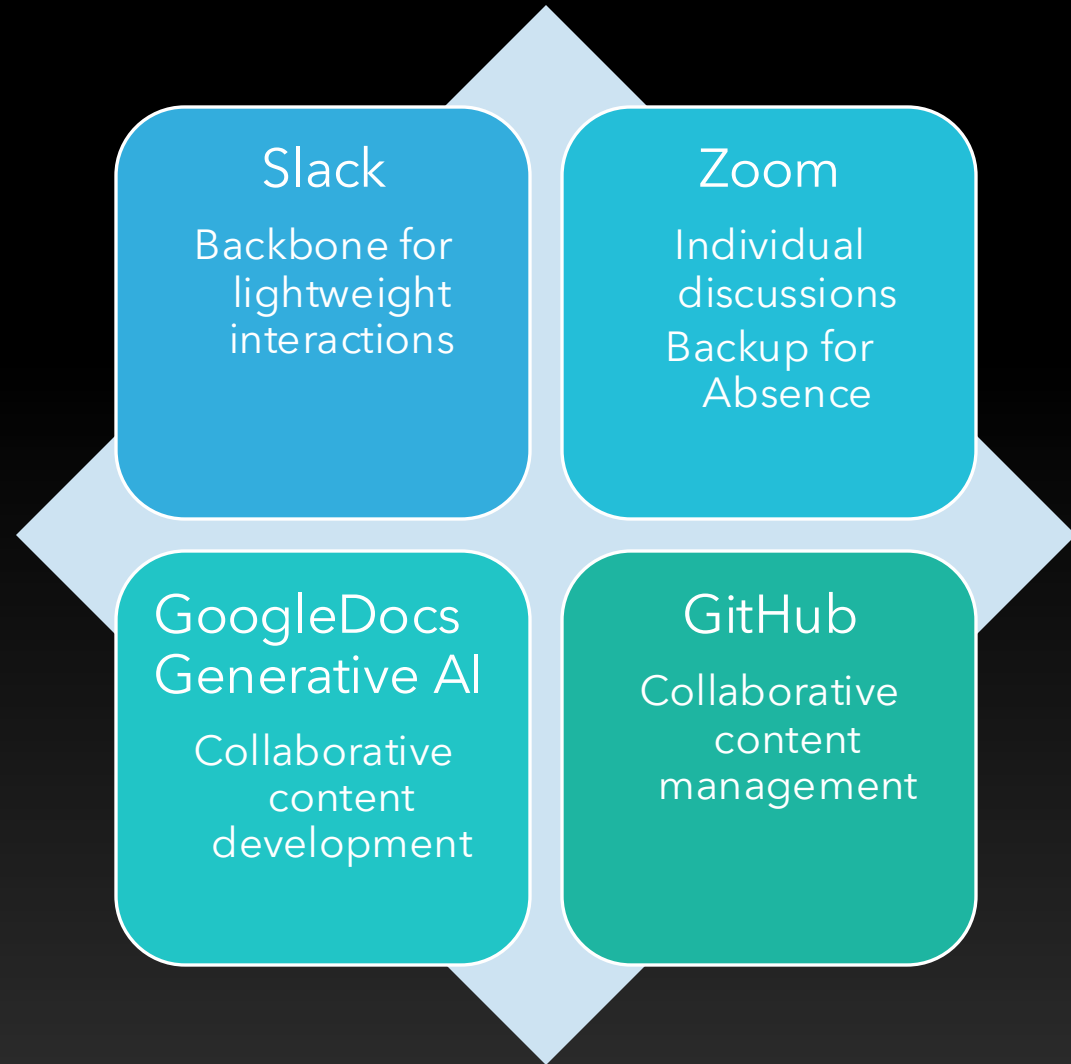


Without regular learning of new content, our skills diminish!
Rate of progress seems to be accelerating: 3 years -> 2, 1.5?

Timeline: CS Knowledge Growth



Communication tools



Slack: Creating persistent presence



Enables a virtual team room experience



Have it on your phone, desktop, tablet, Apple Watch



Monitor it regularly



Generative AI Tools

Exciting new frontier

We will embrace and explore the use of these tools!

We have a [virtual CS373 instructor](#)*

We have [Gemini Deep Research](#)

...And many emerging capabilities

* <https://chat.openai.com/g/g-0m35Mzndc-cs-capstone-course-companion>

Expectations

Keep strategic goals in mind

- Prepare for professional life
- Cultivate a growth mindset
- Our tactics can change

Be transparent

- Communicate to me and your classmates about opportunities, challenges
- Communicate early, when issues are just emerging and easier to address

Commit

- Stay focused
- Adapt as needed

Resources

<https://maherou.github.io/Teaching>

