



stoa^{v0.1}

a non-scalable,
unorthodox &
principled course

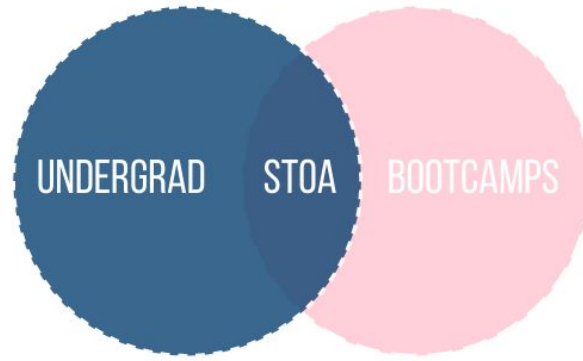
Any sufficiently advanced
technology is indistinguishable
from magic

Arthur C. Clarke




The Destination

- Created challenging, applicable & interesting projects
 - Varying project sizes, from narrow to larger in scope
- Contributed to an open-source project
- Written blog posts
 - Varying in technical complexity
- Exposure to industry practices
- Experienced different languages
 - By proxy, different systems of thinking
- Expanded your thinking & learned more about yourself



The Principles

Informs the spirit & motivations of the course

- Creation is divine
 - From Zero to One
 - The future will be better & we will help plan & build it
 - What are the impacts of our creations? 
 - Science & engineering excellence as public service
- Curiosity, openness & enthusiasm are treasured
 - Just For Fun learning (& requires learning autonomy)
 - Fostering a sense of play as the key to continuous learning
- Audacity to explore, to create & to learn
 - Courage to venture the path
- Unrelenting insistence & expectation of excellence
 - An exception to the rule

The Principles

- Reasoning from First Principles
 - Robustify knowledge via ideating & tinkering
 - Known principles easily converted into methods.
Known methods hard to convert into principles.
 - What would an ideal (insert) look like?
- Future-driven
- Non-dogmatic
- Occam's razor
- Writing as a first-class citizen
- Interaction with knowledge is core to deep understanding

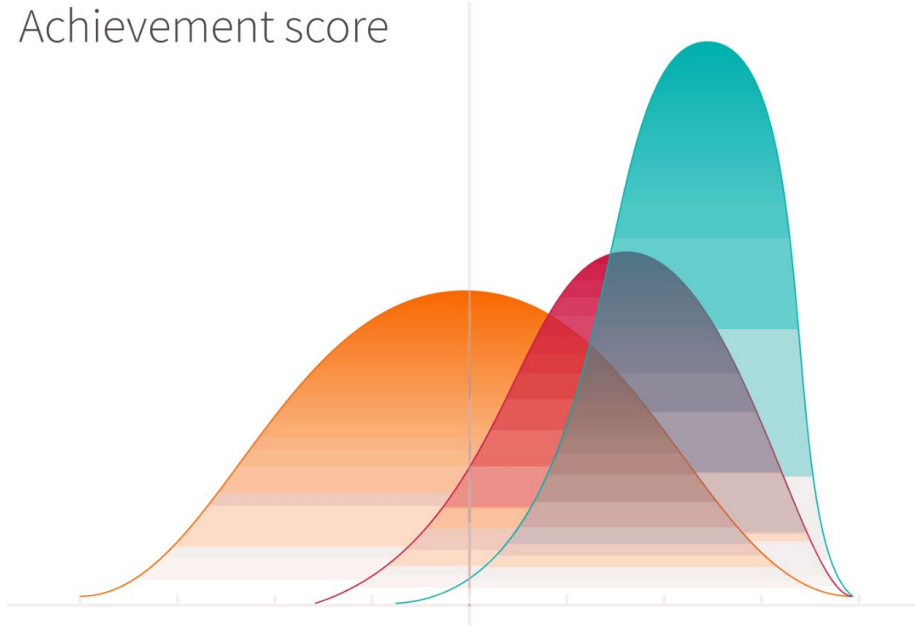
The Design

Informs the structure of the course

- Anti-Parallel Learning
- Harnessing the Pareto principle
 - Googlability built-in
- Apprenticeship model (non-scalable)
 - Bloom's 2σ problem
- Encouraging mastery learning & rabbit-holing
 - Friends don't let friends believe in magic

The Design

Achievement score



Lecture



Mastery Learning



Individual Tutoring
+ Mastery Learning



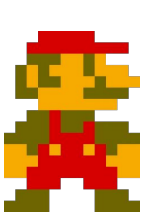
The Design

- Empiricism
 - Task-oriented - authoring code & posts
 - Transmute belief (🗿) into deep knowledge (🏆)
- Spaced repetition
- Self-teaching
 - learning to learn in the internet age
- Learning via the deep end
 - Take on ambitious projects, you either succeed or you learn but it is always worth it

The Proposed Protocol ⚙️

- Minimal note taking - engagement is more important
 - Scribbles for things to revisit
- Slides rarely used (😓)
- Relentless enquiry 🧠

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Disclaimers ⚠️

- 🧪🐻 experimental 🧪🐻 (v0.1 for a reason!)
 - We're both learning!
- Consider me a guide & not an omniscient source!
 - *You must assume the responsibility for what you believe*
 - *"Don't Trust, Verify"*
- The computer is unrelenting so you might get frustrated!