

Hello ! I teach three distinct areas: foundational machine and assembly via LC-3 to C++ (Patt/Patel), system design from theoretical to practical re-engineering, and STEM technical communication where I blend Chomsky's kernel sentences and clarity with iterative GPT to acuminate writing skills and grow an authenitic voice.

I provide a customized interactive framework with Google Docs, Sheets, Colab, and GitHub offering students a modernized **new.REAL** of learning engagement. Students festoon together, engage in active collaborative JAMs, and cultivate day.1 programming readiness entwined with tangible career preparedness.

My aim is to advance an Arthur Kroker-esque **new.REAL** paradigm that enhances student engagement through universally accessible course materials on any device, anytime.

- A.** GPT APIs via DeepLearning.AI summarize audio lectures.
- B.** GPT APIs summarize lecture notes.
- C.** GPT APIs summarize textbook readings.
 - o After each class,
 - o A custom script identifies disparities amongst items **A,B,C** generating a synthesized report of what was taught and naught.
 - o The accumulated media is stored in a repository
- D.** AI.Agents => Media accumlation is substrate for bespoke AI.agent that allow students to pose intricate curriculum-related queries for precise answers.
- E.** #=> This initiative reflects my dedication to further accessibility and generation of new sustained learning paradigms where knowledge is formed via interactive learning structures with on-demand assistance and use AI today to expand educational boundaries.

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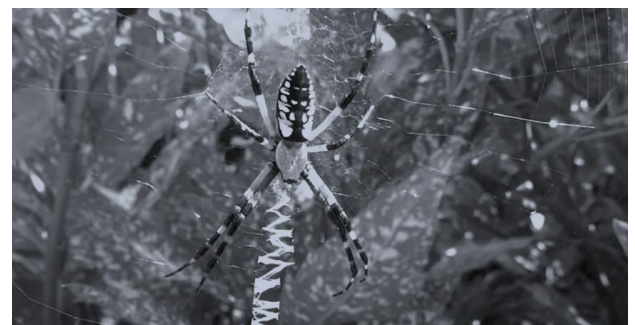
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festooning bees mending



stabilimentum zigzag: decoration, deterrent, or warning?



instructor.brian's Lecture thematic

Melittologic and arachnids, mainly honeybee and orb-weaver spiders, inspire my adaptive learning approaches and serve as an ongoing lecture thematic to help bridge students to higher principal thinking by understanding creature visual, cooperation, and structural adaptations such as

- o A worker bee signals a sentry to clean a mite instead of infecting the hive indicating health consciousness, unity, and collective intelligence.
- o Spiders weave adaptive stabilimentum patterns to decoy from a predator's perception and even cloak their abdomen or cephalothorax in plain sight.

Arachnids => Antipredator strategies and visual asecthics

Robledo-Ospina, Luis, et al. Visual Antipredator Effects of Web Flexing in an Orb Web Spider, with Special Reference to Web Decorations . <i>Die Naturwissenschaften</i> 110.3 (2023): 23. ProQuest. Web. 18 Aug. 2023.	
<p>Abstract Some visual antipredator strategies involve the rapid movement of highly contrasting body patterns to frighten or confuse the predator. Bright body colouration, however, can also be detected by potential predators and used as a cue. Among spiders, Argiope spp. are usually brightly coloured but they are not a common item in the diet of araneophagic wasps. When disturbed, Argiope executes a web-fexing behaviour in which they move rapidly and may be perceived as if they move backwards and towards an observer in front of the web. We studied the mechanisms underlying web-fexing behaviour as a defensive strategy. Using multispectral images and high-speed videos with deep-learning-based tracking techniques, we evaluated body colouration, body pattern, and spider kinematics from the perspective of a potential wasp predator. We show that the spider's abdomen is conspicuous, with a disruptive colouration pattern. We found that the body outline of spiders with web decorations was harder to detect when compared to spiders without decorations. The abdomen was also the body part that moved fastest, and its motion was composed mainly of translational (vertical) vectors in the potential predator's optical fow. In addition, with high contrast colouration, the spider's movement might be perceived as a sudden change in body size (looming effect) as perceived by the predator. These effects alongside the other visual cues may confuse potential wasp predators by breaking the spider body outline and affecting the wasp's fight manoeuvre, thereby deterring the wasp from executing the fnal attack. Keywords Deimatic displays· High-contrast visual cues· Secondary defensive strategies.</p>	
<p>Stabilmentum</p> <p>A stabilimentum (plural: stabilimenta), also known as a web decoration, is a conspicuous silk structure included in the webs of some species of orb-web spider. Its function is a subject of debate.</p>	

		Baltimoreandohiorr(2019), https://www.youtube.com/watch?v=kNzg0PCVMqk
		https://en.wikipedia.org/wiki/Stabilimentum

1. Festooning bees from Wildflower Meadows. Retrieved from: www.wildflowermeadows.com