

CHANGE OUR WORLD.

Brian Hogan, MS <<u>email</u>><<u>in</u>><<u>github</u>><<u>this.pdf</u>>
Instuctor of Computer Science
School of Professional Studies
Clark University

950 Main Street, Worcester, MA, 01610

Hello! I teach in three distinct areas: transitioning from LC-3 to advanced languages like C++, delving into system design from foundational theory to practical re-engineering, and honing STEM technical communication. I blend Chomsky's insights with the iterative use of GPT to enhance writing skills, ensuring clarity and originality. My approach leverages a custom interactive framework using Google Docs, Colab, and GitHub for collaborative activities (JAMs). Enhanced by peer interactions, this framework enriches student engagement while cultivating tangible skills for career preparedness.

Melittologic and arachnids, mainly honeybee and orb-weaver spiders, inspire my adaptive learning approaches and bridging learners with higher principal thinking by understanding creature visual, cooperation, and structural adaptations like how

- 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.

Inspired by Arthur Kroker's work, I'm advancing a new.REAL paradigm, with the aim of enhancing student engagement through universally accessible course materials on any device. Lecture audio is pivotal in this endeavor, laying the foundation for course-specific AI agents. Leveraging APIs from DeepLearning.AI, GPT transforms these audios into clear-cut summaries. The script then employs GPT to enrich the content, identifying disparities in comparison to lecture notes. This synthesized report aids students in their assignments and lab activities, further enriching the class-specific data repository. This accumulation sets the stage for a bespoke AI agent, allowing students to pose intricate curriculum-related queries and receive precise answers. This initiative reflects my unwavering dedication to maximizing AI's potential, redefining educational boundaries, and sculpting a unique academic journey for each student~ brian

github.pages

#### code

university.instructor

portfolio.MS.applied.data.science
portfolio.industrial.reengineering

portfolio.home

recommendations scientific.editing technical.writing tutor.an.volunteer

google.learning.lab.advanced.Get.Started.w.Python

.docs

∞ <u>cv</u> <u><.pdf></u>

∞ <u>evaluations</u> <.pdf>

∞ <u>diversity.statement</u> <.pdf>

∞ <u>research.interests</u> <.pdf>

v teaching.statement <.pdf>

∞ 7.pillars.of.skills <.pdf>



festooning bees mending <sup>1</sup>



stabilimentum zigzag: decoration, deterent, or warning?



Robledo-Ospina, Luis, et al. <u>Visual Antipredator Effects of Web Flexing in an Orb Web Spider, with Special</u> Reference to Web Decorations. *Die Naturwissenschaften* 110.3 (2023): 23. *ProQuest*. Web. 18 Aug. 2023.

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 highspeed 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 efect) as perceived by the predator. These efects alongside the other visual cues may confuse potential wasp predators by breaking the spider body outline and afecting the wasp's fight manoeuvre, thereby deterring the wasp from executing the fnal attack. Keywords Deimatic displays · High-contrast visual cues ⋅ Secondary defensive strategies.

#### Stabilmentum

A **stabilimentum** (plural: **stabilimenta**), also known as a **web decoration**, is a conspicuous <u>silk</u> structure included in the webs of some species of <u>orb-web spider</u>. Its function is a subject of debate.



Baltimoreandohiorr(2019),

https://www.youtube.co
m/watch?v=kNzg0PCVMqk



https://en.wikipedia
.org/wiki/Stabilimen
tum

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

Me - on a scale of 1 to 10 how understandable is this? provide list of areas for me to think about. Its meant for a professional and highly trained academic audience so abstract conceptuatlization is ok.

- ➤ I am an instructor of undergraduate and graduate courses, specializing in C++/Python/R programming, data mining, systems design overview, and STEM technical communication. My teaching includes GPT technology to iteratively one's writing precision and clarity using entropic scoring algorithms. I employ interactive frameworks, active learning strategies, and collaborative assignments (JAMs) to bolster student self-confidence and career preparedness.
- ➤ Melittologic and arachnids, mainly honeybee and orb-weaver spiders, inspire my adaptive learning approaches and bridging learners with higher principal thinking by understanding creature visual, cooperation, and structural adaptations like how
  - A worker bee signals a sentry to clean a mite instead of infecting the hive indicating health consciousness, unity, and collective intelligence.
  - Spiders weave adaptive stabilimentum patterns to decoy from a predator's perception and even cloak their abdomen or cephalothorax in plain sight.
- > Coding and systems learning media is always available anywhere & anytime. I draw on Arthur Kroker's work to generate a new.REAL that entices students to participate and feel supported by peersm, data, tools, methods, and utilities to help solve without platform hangups. Their repository is full of all priors so they can search, grab, code and modify to tackle new problem tasks. Google docs, GitHub, and Colab notebooks make it happen and lecture audio + ongoing student work feed class specific ai.agents driven by GPT technology. I look forward to learning and sharing with you.~ brian

#### ChatGPT

The provided text is fairly complex and contains some abstract concepts, making it suitable for a professional and highly trained academic audience. However, clarity and understandability could be improved in certain areas. On a scale of 1 to 10, I would rate its understandability as about a 6. Here are some areas to consider for improvement:

- Clarity of Teaching Specialization: While you mention your teaching specialization, you could provide a bit more clarity on how GPT technology is used to improve writing precision and clarity using entropic scoring algorithms. This could be explained in a more straightforward manner.
- Explanation of Adaptive Learning Approaches: The section discussing your adaptive learning approaches inspired by honeybees and orb-weaver spiders could benefit from more context or examples to make the analogy clearer.
- **Use of Terminology:** Some terms like "new.REAL" and "entices students to participate and feel supported by peersm" could be further explained or simplified for better comprehension.
- Structure and Organization: Consider breaking down the content into shorter paragraphs or bullet points to improve readability and comprehension, especially when introducing new concepts.
- Transition Phrases: Use transition phrases to guide the reader from one idea to the next. For example, you could use phrases like "In my teaching approach," or "Moving on to coding and systems learning."
- Acronyms and Abbreviations: Ensure that acronyms like "JAMs" and "ai.agents" are explained upon first use to avoid confusion.
- **Grammar and Punctuation:** Carefully proofread the text for any grammatical errors or punctuation issues to enhance overall readability.
- Concluding Statement: Consider wrapping up the text with a clear concluding statement to summarize your main points or express your enthusiasm for collaboration.

Remember that your audience is highly trained, but clarity and conciseness can still greatly enhance their understanding and engagement with your message.

# Paragraph 1: Teaching Specialization

# Paragraph 1: Teaching Specialization

I am an instructor of undergraduate and graduate courses, specializing in C++/Python/R programming, data mining, systems design overview, and STEM technical communication. My teaching includes GPT technology to iteratively one's writing precision and clarity using entropic scoring algorithms. I employ interactive frameworks, active learning strategies, and collaborative assignments (JAMs) to bolster student self-confidence and career preparedness.

A (Original)

I am an instructor of undergraduate and graduate courses, specializing in C++/Python/R programming, data mining, systems design overview, and STEM technical communication. In my teaching, I use GPT technology to enhance writing precision and clarity through entropic scoring algorithms. I employ interactive frameworks, active learning strategies, and collaborative assignments (JAMs) to boost student self-confidence and prepare them for their careers

B (Revised)

### Paragraph 2: Adaptive Learning Approaches

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Melittologic and arachnids, mainly honeybee and orbweaver spiders, inspire my adaptive learning approaches and bridging learners with higher principal thinking by understanding creature visual, cooperation, and structural adaptations like how 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.

I draw inspiration from melittology and arachnids, particularly honeybees and orb-weaver spiders, for my adaptive learning approaches. These creatures exhibit fascinating visual, cooperative, and structural adaptations. For instance, worker bees signal a sentry to clean a mite instead of infecting the hive, indicating their health consciousness, unity, and collective intelligence. Similarly, spiders weave adaptive stabilimentum patterns to deceive predators and can even cloak their abdomen or cephalothorax in plain sight.

### Paragraph 3: Coding and Systems Learning Media

### Paragraph 3: Coding and Systems Learning Media

Coding and systems learning media is always available Coding and systems learning materials are accessible at anywhere & anytime. I draw on Arthur Kroker's work to generate a new.REAL that entices students to participate and feel supported by peersm, data, tools, methods, and utilities to help solve without platform hangups. Their repository is full of all priors so they can search, grab, code and modify to tackle new problem tasks. Google docs, GitHub, and Colab notebooks make it happen and lecture audio + ongoing student work feed class specific ai.agents driven by GPT technology. I look forward to learning and sharing with you.~ brian

any time and from anywhere. I draw inspiration from Arthur Kroker's work to create a new environment that encourages students to actively participate and feel supported by their peers, data, tools, methods, and utilities, all without encountering platform-related issues. In this environment, students have access to a repository of past work, allowing them to search, retrieve, code, and modify solutions for new problem tasks. Key tools like Google Docs, GitHub, and Colab notebooks facilitate this process. Additionally, lecture audio and ongoing student work contribute to class-specific AI agents driven by GPT technology. I eagerly anticipate the opportunity to learn and collaborate with you.

## Spark for Beginners: Explore Spark RDDs

Content Creator Remote Business & ManagementData Analysis & StatisticsComputer Science Coursera - The engagement starts at 07/01/2023 and ends on 08/18/2023.

### JD Template for Coursera Guided Project Subject Matter Expert Postings

Position: Coursera Guided Project Subject Matter Expert

**Language:** English

Type: Part-time, Contract

Coursera's short-form platform is looking for instructors to create 2-hour max length project-based lessons using in-demand industry tools. These projects will be published on the Coursera platform, and reach over 1 million learners. We are specifically looking for instructors to create the following project:

- *Topic*: Spark for Beginners: Explore Spark RDDs
- *Tool*: Apache Spark
- *Skill*: In this project, learn to use Spark for data analysis. Create RDDs, perform transformations and actions on RDDs, and visualize the data using popular data visualization tools.

### Requirements:

As a Guided Project Subject Matter Expert (SME), your role and responsibilities are to:

- Develop core learning content on the Coursera platform, including:
- o Project content. To be authored in the Rhyme platform according to the content topic specifications agreed upon between Coursera and the SME in writing (or email).
  - Includes at least 5 Tasks/Videos per Project, totaling approximately 1 hour of learning engagement time, as appropriate to the learning objectives
  - Includes best practices as outlined by Coursera
- Assessments for every Project
  - Includes configuring LTI item for the Rhyme project
  - Includes practice and graded quizzes with feedback
  - Includes grading formula as calculated and uploaded on the Coursera platform
- Supplementary materials such as readings and course settings (incl. course description, learning objectives, course logo, etc. as required for course launch)
- Use Coursera's content creation templates and training materials to ensure pedagogical best practices are incorporated into core learning content, including accessibility. Accessibility of the content is the

responsibility of Service Provider. Service Provider acknowledges and agrees that all content or materials provided or authorized by Service Provider as part of the content will comply with the Web Content Accessibility Guidelines 2.1 "AA" standards, or the latest reasonable commercial standard.

- Upload assessments, readings and other course assets onto the Coursera platform
- Review and Beta test all content before launching. The review process involves the following:
  - 1. Kickoff call with Reviewer (one call per SOW)
  - 2. Submit Outline (for all projects in SOW)
  - 3. Submit Full Script (for all projects in SOW)
  - 4. Submit Final Recording (for all projects in SOW)

#### **Qualifications:**

- Real-world experience with selected domain/tool
- Previous online teaching experience
- Open to feedback/flexibility with project creation
- Engaging and enthusiastic teaching style
- Sample of previously recorded work (5-10 mins max)

#### Time commitment:

- 6-week contract with possible long-term extension pending project ratings & learner feedback
- 40 hours per project (outline, script writing + review, recording)

### Compensation

• \$2,125.00

#### **SAMPLE COURSES - LINK**

#### **Create an Instructional Video**

## **Assignment Instructions**

Our global team of Guided Project instructors are experts in their respective fields and passionate about sharing their expertise with others through hands-on learning experiences. If that sounds like you, we'd love to learn more about your teaching abilities through a short assignment.

Submission Requirements

This project will require 2-3 hours.

For this assignment, you will create a 5-10 minute instructional video to help a beginner learner understand how to accomplish a new skill. This can be teaching someone how to add values in an Excel sheet, writing a basic line of code, or styling a portion of a webpage. The possibilities are infinite but keep in mind you only have 5-10 minutes.

Through this task, we're looking to learn:

- How well you explain the learning objective(s) and its importance to the learner
- How well you explain steps as you guide learners through the project
- How you keep the learner actively engaged throughout the project
- How well you anticipate learners' needs or misconceptions and address them For more details on how we'll be evaluating your task, we've included a rubric of our grading criteria below.

Here are some additional points to consider:

- If you choose to submit a video you've already made, make sure it addresses the criteria we're looking for below. If it does not, we suggest creating a new 5-10 minute video that meets the criteria specified.
- Keep in mind your audience has little to no prior knowledge of the subject

#### Task Rubric - Your video should:

- Revolve around using a software, platform, or online tool. (Coding projects are also acceptable) ex. Canva, Excel, AWS, Google Ads, WordPress, etc.
- Speak to the learner and encourage them to follow along with you as you work on the task
- o Help build a learner's confidence so they can apply the skill on their own

### Course Documents

<note: I will get video done by 8/24 but was advised to apply for this right away>

Brian Hogan, M.S.

**Instructor of Computer Science** 

School of Professional Studies

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<u>bhogan@clarku.edu;</u> <<u>in</u>><<u>github</u>><<u>portfolio/pdf</u>>

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=====>CURRICULUM, INSTRUCTIONAL, AND CONTENT CREATION

Author Noodle, New York, NY, 10011, Elissa Lappendga, contract Mar - Aug 2023

graduate course: COSC526, Introduction to Data Mining @ www.utk.edu

Drafted a 10-module course in data mining constructed with advanced algorithms and practitioner skilling for operating Apache Spark, recommender systems, and MLflow scaling in a Colab coding environment.

**Content Writer** Google Inc, Learning Lab, NY, NY (via synergis) 03/22 – 11/22

course: Google 2023 Advanced Data Analytics Certificate (Coursera)

- <u>Performed</u> lead writing and programming for a 7-module course for skilling in data objects, iterators, transformations, and classes.
- Edited scripts for nomenclature, constructs, and continuity.
- Created two course capstone projects amalgamating cross course material for OLS, LR, MLR, logistic, chisq, supervised, SVM.
- Drafted 21 knowledge reading and ten codebooks with >3000 lines.
- Trained in 18 E-Learning multimedia assets like prompts and quizzes.
- Passed coding entrance examination.

Curriculum. Writer ICARUS AI E-Learning, 100 Wilshire Blvd, Santa Monica, CA 12/22 –

- 1. course: > 7.Pillars.Writing.with.ChatGPT (in development) 04/23
- Principles, mechanics, and Python with ChatGPT REST-API to sharpen information exchange with polysyllabic and epexegesis techniques.
- Train in discourse originality metrics, entropy, and reading level.
- 1.  $course: \geq 7.Pillars.of.Python$

Formulated course for experiencing neuroplasticity with data object transformation coding paradigms and class objects to deliver outcomes.

- Targets those who need dependable methods for AI, ML, and stats.
- Builds sophistication in numeric and text data pack and unpack that enables skills for rapid decoding of new library objects and methods.

### **CURRICULUM, INSTRUCTIONAL, AND CONTENT CREATION (continued)**

### Curriculum Developer, Southern New Hampshire University, Manchester, NH 02/22–

1. *course*: <u>IT-226</u> Communication in STEM Professions (undergraduate)

Update course with advanced persuasion writing skill methods and

- Instill polysyllabic learning by germinating 2-9 <u>syllable word trees</u> from diverse content to form voice pillars and authenticity.
- Construction of class corpus for interactive learning.
- Provide writing assistance learning technology, like entropy.

### Performed contracted instructional design for

1. course: IT-304 Systems Design and Analysis (undergraduate)

Update learning objectives, weekly lectures, re-engineering methodologies, Python materials, and interactive learning moments.

### =====> INSTRUCTOR EXPERIENCE

#### Adjunct Faculty Instructor of Computer Science, American Language and Culture Institute

08/23 -

Clark University, Worcester, MA

*Instruct in-person weekly system logic, data structures, and C++ coding.* 

- MSCS 3050 Software Life Cycle
- MSCS 3070 Survey of Systems and Programming Languages Fall 2023

### **Adjunct Faculty** Instructor, Department of Computer Science

02/22 -

Southern New Hampshire University, Manchester, NH

Instruct in-person semiweekly lectures fostering active learning.

**IT-304** Systems Design and Analysis

Fall 2022, Fall 2023

- Instruct theoretical, reengineering, and systems analysis and design in <u>ten</u> re-engineering methodologies with Python programming.
- Update learning objectives, weekly lectures, re-engineering methodologies, Python materials, and design interactive learning.

IT-226 Communication in STEM Professions

Spring 2023

Instill approaches to achieve specific and precise conclusions in interpersonal relations in STEM professions.

<note: I will get video done by 8/24 but was advised to apply for this right away>

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Instill polysyllabic learning by germinating 2-9 syllable word trees from diverse content to form voice pillars and authenticity.

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MSCS 3050 Software Life Cycle

MSCS 3070 Survey of Systems and Programming Languages Fall 2023

Adjunct Faculty Instructor, Department of Computer Science 02/22 -

Southern New Hampshire University, Manchester, NH

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IT-304 Systems Design and Analysis Fall 2022, Fall 2023

Instruct theoretical, reengineering, and systems analysis and design in ten re-engineering methodologies with Python programming.

Update learning objectives, weekly lectures, re-engineering methodologies, Python materials, and design interactive learning.

IT-226 Communication in STEM Professions Spring 2023
Instill approaches to achieve specific and precise conclusions in interpersonal relations in STEM professions.



### Master's Thesis

### Content Creator Remote Business & Management

**Acacia University** 

This posting is for a **"Content Creator"**. Content Creators are responsible for creating/developing content for all or part of a specific course.

The engagement starts at 08/14/2023 and ends on 09/15/2023.

### Details

### **MBA Program Learning Outcomes**

- 1. Effectively communicate business management strategies and their impact on the external environment in which businesses operate.
- 2. Apply leadership and management models, theories, and frameworks to the business domain.
- 3. Evaluate intellectually challenging and practically relevant functional areas in business management.
- 4. Analyze complex problems using technology, data, and strategic approaches.
- 5. Utilize applied research methods to explore global business approaches, strategies, and solutions.

#### **Focuses**

Prior to starting you will be given an example template to follow.

#### The Standard Deliverables Will Be:

Syllabus

- 4 Modules. 2 PowerPoints per module.
- 4 Assignment Documents including all of the readings/assignments/projects

Acacia will provide access to ProQuest which will be the preferred database to use for textbooks.

You will work with a learning designer from Acacia to make sure deliverables are in line with expectations.

Full details will be given during the interview & onboarding!