Statement of scholarly activities

by: Brian Hogan, MS

Introduction

As a former industrial re-engineering simulation consultant and registered US farmer, I have had diverse experiences shaping my approach to teaching and training programmers. From data structures to backhoes, my team was doing the work of data science before it even had a name. At State Street Bank, I was the only one to solve the "how to build a mousetrap" puzzle, which led to over two years of management consultant training under Professor Hammer at MIT. Although family responsibilities forced me to leave my master's program in sociology, my passion for research and the scientific method never wavered. I continued to work as a professional model builder, solving massive supply chain issues and right-sizing 500-person organizations. A senior regulatory affairs strategist, Professor Corrine Gamper, even called me her fellow pencil head.

Using this wealth of experience, I focus on training and educating the next generation of programmers. I am particularly excited about my >_Pillars.Python.Essentials course, which addresses the elephant in the classroom: data transformation. In my classes, I bring my trusty Texas Instruments TI-30 calculator and ensure that all students, regardless of their prior programming experience, can write code within a month. Once I secure a full-time instructor or assistant professor position, I plan to give away my >_7.Pillars.Python courses to promote programming equity for grammar and high-school students worldwide. Although I don't always look back fondly on the 585,000 miles I flew during my 30s, I'm deeply committed to helping young programmers get in the saddle and soar.

Research experience and interests

As an authenticity identification researcher, I have utilized polysyllabics and logodaedaly to test and develop originality scoring mechanisms. This work aims not to detect plagiarism but to create a discourse score and a programmatic means to improve information exchange quality with polysyllabicisms and periphrastics.

Interests extend to statistical measures of fairness so AI isn't used to captivate humans with complex jargon and polysyllabics. Additionally, long-format podcasting is a viable means for harvesting computer science literacy content. I aim to create a data pipeline based on audio transcription automation and summarization using ChatGPT. This would spit out weekly lecture content for class discussion and subsequent persuasive argument debating.

For audio transcription automation, I am grateful for <u>Dr. Joel Wallach's</u> consideration to test my skunkworks methods with his health rich podcasts as a means to widely expand health equity. I aim to use the same data pipeline to generate weekly lecture content focused on health equity for promoting learning awareness and education, supporting <u>Dr. Wallach's</u> theory of 120 years of age life expectancy.

In 2021, I worked as a research volunteer at a 23-bed, 63-nurse and associate acute care floor in Winchester Hospital, Winchester, MA. Under the guidance of Nurse Manager Debra Barbuto, RN, MSN, work investigated the efficacy of evidence-based purposeful hourly rounding on patient falls and length of stay satisfaction. I designed the data collection, encoded three months of daily patient measurements, and learned REDCap API

data transfer to R. The tangible outcome was the adoption of purposeful hourly rounding not only on the floor but across the hospital.

Publication

As a Scientific Editor at Accdon LLC, located in Waltham, MA, from July 2020 to June 2021, I completed scientific language editing training and passed an exam. During this time, I edited three manuscripts for peer-reviewed journal publications in data science.

As a Content Writer for Google Inc, Learning Lab, in New York City, NY, via Synergis, from March 2022 to November 2022, I worked on a Google 2023 Advanced Data Analytics Certificate course. In this role, I led writing and programming for a six-part Python course staging knowledge for skilling in data objects, conditionals, functions, iterators, transformations, and classes. I also reviewed and summarized neuroscientific literature, created two course capstone projects, drafted 21 knowledge readings, ten codebooks with >3000 lines, four course projects, three self-reviews, and tether filming code scripts. I trained in 18 E-Learning multimedia assets like prompts and quizzes and . Additionally, I edited scripts for nomenclature, constructs, and continuity. A coding entrance exam was required and won a seat for having one's computer act like a robot.

Grants and awards

- A. Foobar Participant, Google Inc. Spring 2022
 - Invitation earned through deep Python and Linux research.
 - Completed three challenges.
- B. Lex Fridman Interview Finalist, Personal Secretary 10/20 01/21
 - Finalist for the Lex Fridman interview, an honor granted for exceptional work.
 - Grateful for personal attention and received Lex's email.
- C. Golden Key International Honour Society, Member 10/20 -
 - Member of the prestigious Golden Key International Honour Society.
 - Recognized for outstanding academic achievements and leadership potential.

Teaching and Mentoring

My philosophy builds upon applying learning theory to create a dynamic and engaging learning environment for diverse learners. My approach includes delivering lectures that elucidate technical content rather than simply using slides. I facilitate aha moments to aid recall and help students reach their potential. I developed interactive learning experiences to maintain student interest and provide quality code sets to ensure a baseline of learning outcomes.

Ongoing education includes extracting insights from scientific literature, such as skill detection. I'm evaluating the GPT-3 API to assess programmatic for students to upskill technical writing outcomes dynamically. My future goals include exploring mechanisms to expand student computer science literacy as the singularity is near. Lex Fridman substrate can facilitate this outcome.

Active learning strategies facilitate an engaging learning experience. For example, in my computer science technical writing class, students work in a cloud spreadsheet, simultaneously building an assignment corpus for data mining and code training. Short readings provide contextual experience with unfamiliar but valid polysyllabic words, and group work extracts them to a syllable word tree to facilitate language upskilling.

All computer science classes should include AI and coding; <u>day one</u>. Student proficiency requires deep and wide AI familiarity to instantiate gut checks, nuances, and discernment thinking. By fostering a genuine interest to get busy solving, students learn the work is about equipping them with skills and knowledge to ideate tech and self-drive their passions.

Service

University Service at Southern New Hampshire University, Manchester, NH

- 1. Undergraduate Research Day Mentorship: As a mentor for 2023
 - Worked with students to present their research on ChatGPT's Discourse on the Method. I focused on enhancing the quality of polysyllabic information exchange and helping students apply for a \$1000 scholarship.
- 2. Amazon Web Services Coding Jam Competition:
 - For a four-school AWS hackathon with fifty students, I provided custom training to a team of three students. Thanks to my guidance, the team successfully finished the challenge, highlighting their skills in coding and AWS management.
- 3. Winchester Transfer e-Trash Recycling:
 - As part of my university service, I partnered with the municipality to donate computer monitors (11), cables (+10), and miscellaneous items like graphic boards (3) to Southern New Hampshire University students. This initiative equipped students with the necessary equipment and contributed to the university's sustainability efforts.

Conclusion

Skill preparedness and computer science literacy are crucial in combating position elimination. Having the necessary knowledge, skills, and confidence is essential in navigating life's challenges. Education is an investment in oneself that not only improves career prospects but also helps in developing critical thinking abilities. It is an investment in advancing citizenship and promoting habitat equity.

The benefits of education are clear, but we must also remember that access to quality education should be a fundamental right for everyone, regardless of their background or circumstances. By prioritizing education and making it accessible to all, we can create a more equitable and respectful information exchange interface.

Best Regards,

Brian Hogan