Brian Hogan, M.S.

Department of Computer Science
School of Engineering, Technology, and Aeronautics
Southern New Hampshire University
2500 North River Road, Manchester, NH, 03106
Phone: 603-567-4589
b.hogan@snhu.edu

284 Cross St, Unit 3
Winchester, MA 01890
Phone: 757-477-8241
linkedin.com/in/hoganbp
https://github.com/bbe2/portfolio
brian.p.hogan@alumni.harvard.edu

EDUCATION

Syracuse University, Syracuse, NY   Sept 2018 - Dec 2020
    M.S. Applied Data Science

Boston College, Chestnut Hill, MA   Sept 2000 – May 2001
    M.S. Sociology, Statistics.
    Matriculated. Incomplete because of work relocation.
    Studying multivariate and theory.

Harvard University, Cambridge, MA   Sept 1997 -June 1999
    C.S.S., Business Administration, Harvard Extension School
        Eight full-term, in-person classes.

Babson College, Wellesley, MA   Sept 1989 – May 1993
    B.S. Business Administration
        Departmental Degree in Psychology, Wellesley College

INSTRUCTIONAL DESIGN AND TECHNICAL CURRICULUM DEVELOPMENT

Curriculum Developer, ICARUS AI E-Learning, Santa Monica, CA   Nov 2022 – Jan 2023
            Course author:
- Formulated an innovative Python learning module to address deficiencies in current literature.
- Designed for learners to experience plasticity with data transformation and grok coding of iterators, conditions, and classes.
- Target audience is new learners and programmers who struggle with datacasting and data transformation.
- Secured the inclusion of the course on ICARUS-AI's learning platform.
- Performing course optimization for its E-Learning delivery.

Instructional Designer and Writer, Southern New Hampshire University, NH Oct 2022 – Jan 2023
            IT-226 Communication in STEM Professions (undergraduate)
- Update curriculum with information policy research, ethics theory, sentiment exercises, and NLTK library to experience parts of speech.
            IT-304 Systems Design and Analysis (undergraduate)
- Performed instructional design by building learning objectives, weekly lectures, Python training materials, and class projects.

Technical Content Writer, Google Inc, Learning Lab, (via synergis), NY, NY 03/2022 –11/2022
            Course: Google 2023 Advanced Data Analytics Certificate
- Performed the lead writing and programming in a Python 6-part course.
- Built training and staged knowledge for skilling in data objects, conditionals, functions, iterators, transformations, and classes.
- Edited scripts to ensure nomenclature and constructs across media.
- Researched skilling documentation and skilling literature reviews.

Course: Google Advanced Data Analytics Certificate (continued) 2023

- Created two course capstone projects requiring integration of cross course machine learning and statistical analysis methods, including simple regression, multiple linear regression, logistic regression, classification, and cross-validation.
- Drafted 21 knowledge readings, ten codebooks with >3000 lines, four course projects, three self-reviews, and tether filming code scripts.
- Trained in 18 E-Learning multimedia asset designs such as discussion prompts, peer reviews, readings, vignettes, and quizzes.
- Passed confidential coding and writing entrance examination.

Technical Writer and Illustrator II, Alert Innovation, Billerica, MA   Nov 2021 – Mar 2022
Department: Learning, Training, and Development

- Interviewed operation owners and engineers to draft and update documentation for quality robotics and its operating structure.
- 12 maintenance manuals, 11 service procedures, and two user manuals.

Content Writer   **EXPO Summer Programs**, Norwood, MA   Apr 2021 – June 2022
Department: Education and Training

- Designed a 1-week course on AI foundations, ethics, and use cases.
- Provided 50 pages, 10,821 words, for in-person instructor training.

Curriculum Developer, ProModel Corporation, Orem, UT   2004 – 2014
Department: Consulting
Performed instructional design and technical curriculum development.

- **Lockheed Martin**, San Antonio, TX. Wrote a customized simulation course for scheduling engine overhaul for F-22 and F-35 Lightning.
- **NASA**, Kennedy Space Center, Titusville, FL. Designed and delivered discrete-event curriculum for optimizing a paper-to-image system.
- **NASA**, Washington, DC. Developed curriculum for simulating space asset resource requirements with complex algorithms and ETL.
- **West Point**, West Point, NY. Developed curriculum and performed in-person training for modeling war-based resources and logistics.

TEACHING EXPERIENCE

Adjunct Faculty   **Department of Computer Science**   Feb 2022 –
Southern New Hampshire University, Manchester, NH
Instructional activities include:

- Perform semiweekly in-person 1.25-hour pedagogical lectures.
- Deliver curriculums with pace, agility, and activities students love.
- Perform contracted instructional design to significantly enrich course content objectives by integrating Python data science scripts.

IT 226 Communication in STEM Professions   Spring 2023
Southern New Hampshire University

- Instill a love for vocabulary learning and quality penned items.
- Formulate approaches to achieve specific and precise conclusions for interpersonal relations in business.
- Relay natural language processing and text mining fundamentals in information extraction, retrieval, and corpora statistics.
- Redesigning course materials to account for ChatGPT's paradigm shift.
- Designed a write-and-reflect process of diverse weekly readings for students to learn the contextual usage of polysyllabics and their

TEACHING EXPERIENCE (continued)

IT 226 *Communication in STEM Professions (continued)*   Spring 2023
- definitions. Class reflection corpus used experience sentiment analysis and LDA topic formation with Python.
- Learners collectively germinate a word syllable tree used in weekly writing to teach how to thwart AI plagiarism scoring algorithms.

IT 304 *Systems Design and Analysis*   Fall 2022
Southern New Hampshire University
- Form a system analysis mindset across ten design methodologies.
- Instill students with programming and data transformation skills.
- Instill students with programming and data transformation skills.
- Perform reverse engineering of small-scale physical systems, like DataMan, to bridge learning of database designs, Python libraries, transaction generation, and analysis of functional engineering.
- Course informally acknowledged by two students as semester favorite.
- Word of mouth resulted in student Gabriel attending for 1.5 months.

Corporate Trainer   *Data Science and Discrete-event Simulation Curriculum*   2004 – 2014
ProModel Corporation, Orem, UT
Delivered in-person simulation training ~5-7 times per year for ongoing concerns such as Lockheed Martin, Merck, NASA, Pfizer, and West Point.

PROFESSIONAL EXPERIENCE

Scientific Editor   *Data science topics*   Jul 2020 – Jun 2021
Accdon, LLC (Publishing Services), Waltham, MA
- Passed exam and completed scientific language editing training.
- Edited three manuscripts for peer-review journal publication.

Simulation Industrial Engineering **Consultant; Programmer**   Mar 2004 – Jan 2016
ProModel Corporation, Orem, UT
Performed business process reengineering, including data science, application development, simulation instruction, and system implementation in the defense (security clearance), manufacturing, and pharmaceutical industries. Activities included:
- Performed strategic assessments, project management, and the as needed management of developers and wrote specifications.
- Leadership of clients and developers to ensure successful engagements.
- Performed C++ coding and built designs using ERD, EER, DFD, and IDEF0.
- Performed demand and capacity planning, resource and budget forecasting, and program management.
- Experienced a range of tactical to strategic reengineering efforts.

RESEARCH INTERESTS

I. Use of polysyllabic for authenticity identification.
Doctorate target.

Before the release of ChatGPT, I've been working on using polysyllabics and logodaedaly to test new authenticity scoring mechanisms. The intention isn't to discern plagiarism but to create a) an authenticity score and b) a programmatic means to improve information exchange quality with polysyllabicisms and periphrastics.

- Encourage students to continuously inventory their work for authenticity score substrate, i.e., an individual's unique originality score.
- Inventory diverse polysyllabic words into a syllable tree.
- Transpose of syllable tree into ontological categories with LDA and similar.
- Form (n x 3) matrix by ontology by word by its polysyllabic complexity score.
- Validate score mechanism and validate methods for accuracy and effectiveness.
- Applied for ChatGPT's API for scholastic purposes to facilitate scoring.
- Release a logodaedaly pypi.org library to promote polysyllabic writing.

II. Artificial intelligences use of multisyllabicity for human conversation captivation.

Similar to magician's legerdemain, I posit conversational AI's ability to manipulate humans if converse with multisyllabic words. This raises ethical and programmatic concerns for discerning a human's lexicon level.

- For example, in a lecture, I described a specific system's "propensity." By happenstance, a student was bewildered, maybe even dumbstruck, and took them a few minutes to ask for clarification and I'm glad they did!
- Suspects and criminals have a long history of deviance and obfuscation in a vareity of forms. Analysis of their methods could help form artificial intelligence countermeasures of such persuasion tactics with "big words." Unsure but may reside under the umbrella of AI ethics and fairness.

III. Use of long-format podcasting as essential content for computer science literacy

National policy pursuits are focused on requiring computer science as a high-school graduate requirement (Bass & De Jong, 2021). A complimentary argument exists for including a critical podcast analysis curriculum to facilitate computer science literacy. Consider

- In the 1960s and 1970s, the space race fueled content for learners.
- At present, multimedia learning modalities are expanding exponentially. Machine learning experts, such as Lex Fridman (https://lexfridman.com/), provide deep and wide content to broaden young learners' knowledge framework.
- Every week, churns fresh, baked, and well-researched content from industry juggernauts who also provide pulse, pace, interest, and taste.

SKILLS

- Cloud: performing Google certification for Machine Learning Engineer.
- Languages proficient: Python,, R, and VBA.
- Languages advanced: [C++](C++),, SQL, and Visual Studio.
- Languages familiar: Linux, HTML, Java, SMSS, and XML.
- Representational State Transfer (REST) APIs with Facebook, REDCap, and Twitter.
- Libraries: caret, e1071, ggplot2, klar, pandas, sci-kit-learn, and Tensorflow2.
- NLP proficient: strip/regex, information extraction, detection, negation, and sentiment.
- Multimedia: (some Sphinx), Articulate360, Help/Manual, Illustrator, LaTeX, Markdown, and Photoshop.
- Research: X9 bibliographic database, literature review and summary.
- Technical writing including circuitry, robotics, SaaS, and methodology.

TECHNICAL and REENGINEERING PROFESSIONAL DEVELOPMENT

Google Cloud, Machine Learning engineer certification   November 2022 –
- Fifteen courses for professional certification.
- https://www.cloudskillsboost.google/paths/17. Account ID: b.hogan@snhu.edu.

Google Learning Lab, Multimedia asset design training   Mar 2022 – July 2022
- Performed E-Learning multimedia training, including segmentation, personalization, cognitive load balancing, Flesch Kincaid measuring, contiguity, and signaling.
- Performed self-paced and team training on the design of 18 multimedia E-learning assets such as case studies, peer reviews, readings, vignettes, and quizzes.

TECHNICAL and REENGINEERING PROFESSIONAL DEVELOPMENT (continued)

Amazon Web Services, Account ID: FpfKzlcOwkmK4YPzjMp3JA2   2020
- Performed training on the platform's stack across 14 academy classes, seven live twitch videos, and books by experts J. Simon, and C. Fregly, A. Barth.
- Invited for a third data engineering position interview but not selected.

Scientific Language Editing, AccDon, Woburn, MA   June 2020 – Sept 2020
- Performed scientific language editing across two custom style guides.

Data Science Specialization Certificate, Johns Hopkins University via Coursera 2016 - 2017
- https://www.coursera.org/specializations/jhu-data-science

Edward Tufte: Analyzing and Presenting Data and Information   2007
- Cognitive Style of PowerPoint

Hammer and Company: Reengineering Process Mastery, www.hammerandco.com   2007

INSTRUCTIONAL READINESS

Machine Learning, Systems, and Programming
- Intro to advanced Python and R.
- Systems analysis theory and design methodology.
- Text and image mining with algorithm theory and compute libraries.
- Scripting for the data science pipeline (REST APIs, regex, mongoDB).
- Introduction to natural language processing.
- Introduction to database administration concepts and management.

Statistics
- **Bayesian** - suitable to instruct using existing university materials but require time and or assistance to construct a course.
  - Classwork: Stanton, J. (2017). Reasoning with Data – An Introduction to Traditional and Bayesian Statistics using R.
  - Personal: Marin, J-M et al. (2014). Bayesian Essentials with R.
    - Topics: inference, ANOVA, association, multiple regression, categorical, and time series.
- **Frequentist** - statistical theory, classification, convolutional neural networks, decision tree, linear regression, logistical regression, multiple linear regression, principal components analysis, probabilistic, support vector machine, and unsupervised.

ADVISING

Career Advisor	**FIRSTHAND Advisors**	2021 -

Office of Career Services, Harvard University
- Provide free reviews of university student's resume, curriculum vitae, and career portfolio. At present assisting zackF.

Graduate Advisor	***Nursing, programming fundamentals, and research topics***	2017 – 2018

Self-employed, Greater Boston Area
- Scheduled and advised graduates on their topic research, survey design, use of scales, editing, and statistics.
- Developed a student's writing and logic across nursing research papers, fact sheets, and healthcare policy assessments.

AWARDS, HONORS, and HONORABLE MENTIONS

A. **foobar participant**, Google, Inc   Spring 2022
- Deep Python and Linux research yielded an [invitation](#) to this elusive challenge.
- Completed three challenges before timing out.

B. [Lex Fridman](#) **interview finaliast**   January 2021
- Lex was exceedingly tough and I'm grateful for his personal consideration.

C. **Golden Key International Honour Society**, Member   October 2020

VOLUNTEER & OUTREACH

Internet Archive, UI/UX tester and technical writer   Jan 2023 -
- Training on internal specifications for UX testing to support new features.

Study Participant, ClinicalTrials.gov Identifier: [NCT05058950](#)   Oct 2022 -
An Observational Study Using Multimodal Sensors to Measure Cognitive Health in Adults and Distinguish Mild Cognitive Impairment from Normal Aging (Intuition).
- Measure cognitive performance and create a wellness score from iWatch multimodal passive sensor data. Fascinated by the agency of biometrics and biomimetics.

Wikipedia Language Editor and Article Creator   Aug 2022 -
- Contribute monthly by editing and updating pages with research article citations.

Trash to Treasure, Winchester High School Art Department, MA   11/2020 – 09/2021
- Jackson Lumber and Millwork, Manager Geoff MacKay, Woburn, MA
- [Gathered](#) cutoffs, paint, and supersize cardboard for chair Jenn Levatino.

Mechanical Turking, amazonmturk, ID = A3IWDP1WNMWVR8   2020 – 2021
- Participated to learn approaches and benefits of crowdsource methodologies.
- Performed 1017 human intelligence tasks (HITs) and human subject activities.
- Achieved a 99.03% approval rating on classification, extraction validation, shape memory, language bot training, and automated speech assessment exercises.

REFERENCES

Shyna Gill
>Manager, Curriculum Quality Assurance at Stride, Inc
>Content Writer at Google, Learning Lab
>https://www.linkedin.com/in/shynagill/
>6235 SW Arbor Grove Drive
>Corvallis, OR 97333
>shynagill10@gmail.com
>541-908-0560

Jim McCoy
>Instructional Designer at Google, Learning Lab
>Grow with Google Career Certificates
>Advisory Board at University of Houston
>https://www.linkedin.com/in/ideascomealive/
>jimmcoy@google.com; ideascomealive@gmail.com
>832.661.7145

Robert K. Stephens
>Polaroid Inventor and Multiple Patent Holder
>3 Ginn Road
>Winchester, MA
>bob.stephens43@yahoo.com
>781.729.3149
>781.570.9489 (cell)

Nathan Sorenson
>Lead Writer at Google, Learning Lab
>Grow with Google Career Certificates
>https://www.linkedin.com/in/nathan-k-sorensen-97b4172a/
>nsorenson@google.com

Daneille DeBye, RN, NP
>Nurse Practitioner
>99 Midgley Ave
>Warwick, RI 02886
>danellednp@gmail.com
>781.315.1736

Professor Humayun Kahn, MS, MBA
>Adjunct Faculty, Syracuse University
>https://www.linkedin.com/in/hhkhan/
>hhkahn@syr.edu
>603.890.9870
>Thank you for considering Professors Kahn's reference material below.

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