

## 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

Winchester, MA 01890

Phone: [REDACTED]

[linkedin.com/in/hoganbp](https://www.linkedin.com/in/hoganbp)

<https://github.com/bbe2/portfolio>

### EDUCATION

---

Syracuse University, Syracuse, NY M.S. Applied Data Science	Sept 2018 - Dec 2020
Boston College, Chestnut Hill, MA M.S. Sociology, Statistics. Matriculated. Incomplete because of work relocation. Studying multivariate and theory.	Sept 2000 - May 2001
Harvard University, Cambridge, MA C.S.S., Business Administration, Harvard Extension School Eight full-term, in-person classes.	Sept 1997 - June 1999
Babson College, Wellesley, MA B.S. Business Administration Departmental Degree in Psychology, Wellesley College	Sept 1989 - May 1993

### TEACHING EXPERIENCE

---

<b>Adjunct Faculty</b>	<b>Department of Computer Science</b> <b>Southern New Hampshire University</b> , Manchester, NH Instructional activities include: <ul style="list-style-type: none"><li>• Perform semiweekly in-person 1.25-hour pedagogical lectures.</li><li>• Deliver curriculums with pace, agility, and activities students love.</li><li>• Perform contracted instructional design to enrich course objectives.</li></ul>	Feb 2022 -
	<u><a href="#">IT 226</a></u> <i>Communication in STEM Professions</i> Southern New Hampshire University <ul style="list-style-type: none"><li>• Instill a love for vocabulary learning and quality penned items.</li><li>• Adapt course to address a realized paradigm shift with ChatGPT.</li><li>• Formulate approaches to achieve specific and precise conclusions for interpersonal relations in business.</li><li>• Relay natural language processing and text mining fundamentals in information extraction, retrieval, and corpora statistics.</li><li>• Designed a write-and-reflect process of diverse weekly readings to gather polysyllabic words and experience topic formation with <u><a href="#">LDA</a></u>.</li><li>• Learner building a word syllable <u><a href="#">tree</a></u> cheatsheet to facilitate the formation of polysyllabic words in multiword phrases. The dual strategy is to educate on a trick pony effect achieved against AI plagiarism scoring algorithms.</li></ul>	Spring 2023
	<u><a href="#">IT 304</a></u> <i>Systems Design and Analysis</i> Southern New Hampshire University <ul style="list-style-type: none"><li>• Form a system analysis mindset across ten design methodologies.</li><li>• Instill students with programming and data transformation skills.</li></ul>	Fall 2022

## TEACHING EXPERIENCE (continued)

---

- IT 304 Systems Design and Analysis (continued)** Fall 2022
- 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 their favorite.
- Tutor** *Data Science and Programming* 2019 – 2020  
<https://tutormatchingservice.com>
- [Tutored](#) in data science in both R and Python, including text and data mining, machine learning, statistics, and visualization via ggplot2.
- 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](#).
- Riding Instructor** *Equestrian field sports* 2002 – 2012  
Gone Away Farm, Voluntown, CT (part-time)
- Trained adults and junior horse riders to perform field jumping sports and performance animal sport's care.
  - Raised, [trained](#), and sold 28 performance animals.

## INSTRUCTIONAL DESIGN AND TECHNICAL CURRICULUM DEVELOPMENT EXPERIENCE

---

- Curriculum Developer, ICARUS AI E-Learning, Santa Monica, CA** Nov 2022 – Jan 2023  
Course author: [> 7.py.pillars](#)
- 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, Learning Lab, Google Inc, (via synergis), NY, NY** 03/2022 –11/2022  
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.
  - Created two course capstone projects requiring integration of cross course machine learning and statistical analysis methods, including

## INSTRUCTIONAL DESIGN AND TECHNICAL CURRICULUM DEVELOPMENT EXPERIENCE (continued)

---

Course: Google [Advanced Data Analytics](#) Certificate (continued) 2023  
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.

**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:* Learning, Training, and Development

- [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, technical curriculum [development](#).

- **Lockheed Martin**, San Antonio, TX. Customized simulation course for scheduling plant for F-18, F-22, and F-35 Lightning engine overhaul.
- **NASA**, Kennedy Space Center, Titusville, FL. Customized discrete-event simulation curriculum to suit optimizing paper-to-image workflow capacity and critical diagnostic equipment requirements. Curiously, engineers completed five days of complex materials in two.
- **NASA**, Washington, DC. Built curriculum and logic for SaaS solution modeling diverse space asset project portfolio for quarterly forecasting of a 20-year personnel and equipment budget.
- [West Point](#), West Point, NY. Curriculum development and in-person training for modeling war-based resources and logistics.

## PROFESSIONAL EXPERIENCE

---

**Scientific Editor** *Data science topics* Jul 2020 – Jun 2021  
Accdon, LLC (Publishing Services), Woburn, MA

- Passed [exam](#) and completed language editing training.
- Edited three manuscripts for peer-review journal publication.

**Industrial Engineering and Simulation Consultant** Mar 2004 – Jan 2016  
ProModel Corporation, Orem, UT

In a leadership capacity, performed business process [reengineering](#), including data science, application development, simulation instruction, and system implementation in the defense, manufacturing, and pharmaceutical industries. Activities included:

- Performed strategic assessments, project management, and the as needed management of developers and wrote specifications.
- 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](#).
- Maintenance of security clearance activities.

## RESEARCH EXPERIENCE

---

- Research [Volunteer](#) 23-bed, 63-nurse and associate acute care floor June 2021 - Jan 2022  
Winchester Hospital, Winchester, MA  
Manager: Debra Barbuto, RN, MSN  
Investigated the efficacy of evidence-based practice purposeful hourly rounding on patient falls and length of stay satisfaction, including:
- Designed the data collection and encoded three months of daily patient measurement data.
  - Performed REDCap API data transfer training in R software with the CRAN data.table package.
  - Outcomes: associate chief nursing officer presented the methods, viability, and benefits of adopting purposeful hourly rounding.
- Assisted in evaluating call bell signal standardization across units to help distinguish noncritical to critical care requests.
- Located call bell system parts but unable to perform system upgrade.

## SKILLS

---

- Cloud: performing Google certification for Machine Learning Engineer.
- Languages proficient: Python, R, and VBA.
- Languages advanced to proficient: C++, SQL, and Visual Studio.
- Languages familiar: Linux, HTML, Java, SMSS, SQL, 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: Photoshop, Illustrator, Help/Manual, LaTeX, Markdown, and some Shiny/Sphinx.
- Research (adequate): X9 bibliographic database, literature review and summary.

## 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.
- Introduction to natural language processing with scripting.
- Introduction to database administration concepts and management.

### Statistics

- **Bayesian** - suitable to instruct with existing university materials but would require time and or assistance if constructing materials.
  - 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.

## TECHNICAL and REENGINEERING PROFESSIONAL DEVELOPMENT

---

### Google Cloud, Machine Learning Engineer Certification in progress

November 2022 -

- 15 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.

### 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 editing training in two language editing 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

1999

- Cognitive Style of PowerPoint

### Hammer and Company: Reengineering Process Mastery, [www.hammerandco.com](http://www.hammerandco.com)

1997 - 1999

## RESEARCH INTERESTS

---

### I. Mining for insights and residue from e-data.TRASH and.or e-nonsense.

Anthropology makes regular use of waste to glean insights and classifications.

- Fascinated by the agency of e-trash, discarded e-remnants, and gibberish.

### II. 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, there was the challenge of the space race to fuel 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.
- Is not this vine's fruit ripe for sampling?

## RESEARCH INTERESTS (continued)

---

### III. Artificial intelligences use of multisyllabicity for human conversation captivation.

Similar to a magician's sleight of hand, I posit the ability of conversational AI to manipulate humans using multisyllabic words.

- For example, in a lecture, I described a specific system, "propensity." By happenstance, a student was bewildered, maybe even dumbstruck, as it took a few minutes for them to ask for clarification.
- Suspects and criminals have a long history of obfuscation. 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.

## ADVISING

---

Career Advisor	<b>First Hand Advisors</b> 2021 - Office of Career Services, Harvard University <ul style="list-style-type: none"><li>• Provide free reviews of university student's resume, curriculum vitae, and career portfolio. At present assisting zackF.</li></ul>
Graduate Advisor	<b><i>Nursing, Programming Fundamentals, and Research Papers</i></b> 2017 - 2018 <i>Self-employed, Greater Boston Area</i> <ul style="list-style-type: none"><li>• Scheduled and advised graduates on their topic research, survey design, use of scales, editing, and statistics.</li><li>• Developed a student's writing and logic across nursing research papers, fact sheets, and healthcare policy assessments.</li></ul>

## MENTORING EXPERIENCE

---

Name	Institution	Department	Mentoring Focus	Date	Current Position
Teddy <a href="#">Mbuti</a> <sup>^</sup>	Alert Innovation	Information Technology	Portfolio, personal statement, training.	Feb 2022 - present	IT Analyst II
Selena Washington	Winchester Hospital	Inpatient Services	TEAS exam tutoring for nursing school	Oct 2022 - - present	Certified Nurse Assistant
Harrison X	Sober House		GED tutoring	May 2020 - July 2020	

<sup>^</sup> <[Year Up](#) high-school workforce graduate>

## AWARDS & HONORS

---

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

## VOLUNTEER & OUTREACH

---

- 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 = A3IWD1WNMWVR8 2020 - 2021
  - Participated to learn the benefits of crowdsourcing research methodologies.
  - Performed work on 1017 Human Intelligence Tasks and human subject activities.
  - Achieved a 99.03% approval rating by working on classification, extraction validation, shape memory, 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  
[shynagill110@gmail.com](mailto:shynagill110@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/](https://www.linkedin.com/in/ideascomealive/jimmcoy@google.com)  
[jimmcoy@google.com](mailto:jimmcoy@google.com); [ideascomealive@gmail.com](mailto:ideascomealive@gmail.com)  
832.661.7145

Robert K. Stephens

Polaroid Inventor and Multiple Patent Holder  
3 Ginn Road  
Winchester, MA  
[bob.stephens43@yahoo.com](mailto: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](mailto:nsorenson@google.com)

## REFERENCES (continued)

---

Daneille DeBye, RN, NP  
Nurse Practitioner  
99 Midgley Ave  
Warwick, RI 02886  
[danellednp@gmail.com](mailto:danellednp@gmail.com)  
781.315.1736

Professor Humayun Kahn, MS, MBA  
Adjunct Faculty, Syracuse University  
<https://www.linkedin.com/in/hhkhan/>  
[hhkahn@syr.edu](mailto:hhkahn@syr.edu)  
603.890.9870

Thank you for considering Professors Kahn's reference material below.

I remain deeply grateful to each of the following people for their generosity and time in recommending me for teaching and writing positions.

- [Professor Humayun Kahn](#), MS, MBA (DPS program recommendation)
- [Professor Humayun Kahn](#), MS, MBA (technical writer position reference)
- [Dr. Mitchell Kase](#), MD
- [David Primrose, MS](#), Oracle Cloud Leader, academic peer
- [And](#) Debra Kernstock, MS, Katie Poole, MS, Professor Ralph Garcia-Reilly, and Professor John Santerre, PhD

## CITATIONS

---

Bass, E., De Jong, D, (2020). Computer Science Courses as a Graduation Requirement at the State and National Level: A Policy Brief. International Journal of Educational Leadership Preparation, v15 n1 p126-133 Spr 2020. Retrieved from: <https://eric.ed.gov/?id=EJ1254594>.