**Martin Skarzynski**

BIOSTATISTICS · DATA SCIENCE · EPIDEMIOLOGY · GENOMICS · MACHINE LEARNING · PHARMACOMETRICS · PUBLIC HEALTH · SOFTWARE ENGINEERING

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# Summary

My primary research interest is in understanding health risk factors by combining scientific expertise from diverse fields with machine intelligence.

I believe I am uniquely equipped to bridge the gaps between scientific disciplines and deliver on the promise of data science in health research.

My preferred tools are R and Python, open source programming languages kept on the cutting edge by their active and supportive communities.   
Through research and teaching, I am constantly improving my ability to obtain, tidy, explore, transform, visualize, model, and communicate data.   
I aim to utilize my technical skills and science background to become a leader among the next generation of multidisciplinary data scientists.

# Recent Experience

## Lead Scientist

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| BOOZ ALLEN HAMILTON *October 2019 - Present*   * Translates Subject Matter Expertise into Python and R code * Engineers machine learning algorithms, probabilistic models, and statistical inference tools * Writes tests to ensure model validity and code reliability * Uses git version control to track and manage changes to code, tests, and documentation * Mines data by web scraping and via Application Programming Interfaces * Orchestrates data transformation pipelines * Determines optimal algorithmic approach through iteration and experimentation * Uses Docker and Conda to ensure reproducibility and reliable deployments * Designs SQL queries for improved database querying efficiency * Prototypes new applications using Django, Flask, Plotly Dash, and R Shiny * Builds dashboards products to display data and model outputs * Develops, maintains, reviews, and refactors Python, Shell, R, and JavaScript code * Coordinates model and dashboard code deployment via Amazon Web Services * Communicates results using compelling static and interactive plots * Leverages broad scientific and technical expertise to deliver rigorous analyses * Employs the latest technologies and best practices in data science and software engineering projects * Keeps stakeholders informed with parametrized reports written using Jupyter notebooks and R Markdown * Creates applications to make analyses accessible to non-technical audiences * Leads multidisciplinary COVID-19 statistical modeling effort | |
| **Lead Instructor**  DATA SOCIETY   * Teaches courses such as:  |  |  |  | | --- | --- | --- | | * Machine Learning | * Data Science Bootcamp | * Text mining | | * R Programming | * Data Science Academy | * Python Programming |   GENERAL ASSEMBLY   * Teaches courses such as:  |  |  |  | | --- | --- | --- | | * [Data Science 5000](https://generalassemb.ly/booz-allen-hamilton) | * Tech Excellence Data Science | * Data for Leaders | | * Python Programming |  |  |   **Treasurer**  DATA COMMUNITY DC   * Manages the finances of a non-profit organization that supports [eleven Meetup groups](https://www.datacommunitydc.org/meetups-overview/)   **Cancer Prevention Fellow**  BIOSTATISTICS BRANCH, DIVISION OF CANCER EPIDEMIOLOGY AND GENETICS, NATIONAL CANCER INSTITUTE   * Integrated clinical, laboratory, epidemiologic, genomic, and medical imaging data * Combined deep learning and statistical inference using stacked ensembles   **Bioinformatics and Data Science Department Co-Chair**  FOUNDATION FOR ADVANCED EDUCATION IN THE SCIENCES   * Co-administered an academic program with over twenty faculty members * Taught three graduate data science courses:  |  |  |  | | --- | --- | --- | | * [Introduction to Python](https://github.com/biof309) | * [Introduction to Text Mining](https://github.com/biof395) | * [Applied Machine Learning](https://biof509.github.io/) |  * Taught nine graduate biotechnology workshops:  |  |  |  | | --- | --- | --- | | * Pharmacometric Analyses using R | * Recombinant DNA Methodology | * Cellular Immunology | | * Junior Scientist Training Program * Immunochemistry and Antibodies | * Research Tools for Studying Disease * Cancer Prevention | * Genetics Institute * Flow Cytometry |   **Course Developer**  DATACAMP   * Developed an online course called [Creating Robust Python Workflows](https://www.datacamp.com/courses/creating-robust-python-workflows) (part of Coding Best Practices track)   **Postdoctoral Fellow**  ONCOGENOMICS SECTION, GENETICS BRANCH, NATIONAL CANCER INSTITUTE   * Conducted genomic analysis of immune and cancer cells * Developed and tested immunotherapeutic agents * Mentored a trainee from the NIH High School Scientific and Training Enrichment Program   **Adjunct Professor**  GEORGE WASHINGTON UNIVERSITY   * Taught two undergraduate biotechnology workshops:  |  |  | | --- | --- | | * Biology of Organisms | * Women and Leadership |   **Predoctoral Fellow**  NATIONAL INSTITUTES OF HEALTH   * Tested kinase inhibitor and monoclonal antibody therapeutic efficacy and drug interactions * Engineered and assayed therapeutic immunotoxins * Quantified cancer cell signaling pathways * Mentored a trainee from three different NIH training programs:  |  |  | | --- | --- | | * Summer Internship Program | * Medical Research Scholars Program |  * + - Biomedical Research Training Program for Individuals from Underrepresented Groups   **Education**  **MPH, Epidemiologic and Biostatistical Methods for Public Health and Clinical Research**  JOHNS HOPKINS UNIVERSITY SCHOOL OF PUBLIC HEALTH   * Data Science Certificate   **PhD, Tumor Biology**  GEORGETOWN UNIVERSITY-NIH GRADUATE PARTNERSHIPS PROGRAM   * Teaching Certificate   **MS, Biotechnology**  JAGIELLONIAN UNIVERSITY  **BA, Biology**  ST. MARY’S COLLEGE OF MARYLAND  **Awards**  **Trans-Fellowship Research Award**  CANCER PREVENTION FELLOWSHIP PROGRAM  **Summer School on Modeling Immunology Scholarship**  EMORY UNIVERSITY  **Cancer Research Training Award**  NATIONAL CANCER INSTITUTE  **Fellows Award for Research Excellence**  NATIONAL INSTITUTES OF HEALTH  **Director’s Award**  NATIONAL HEART LUNG BLOOD INSTITUTE  **Certificate of Appreciation**  US STATE DEPARTMENT  **Best Poster Award**  TARGETED ANTICANCER THERAPIES CONGRESS  **Certificate of Appreciation**  ROCKVILLE SCIENCE CENTER  **Orloff Science Award**  NATIONAL HEART LUNG BLOOD INSTITUTE  **Intramural Research Training Award**  NATIONAL INSTITUTES OF HEALTH | *October 2019 - Present*  *July 2019 - Present*  *April 2020 – Present*  *June 2017 - April 2021*  *January 2014 - May 2020*  *October 2018 - Present*  *July 2015 - June 2017*  *January 2015 - May 2015*  *July 2009 - May 2015*  *May 2018*  *May 2015*  *June 2009*  *May 2007*  *June 2019*  *May 2017*  *November 2015*  *June 2015*  *October 2014*  *July 2014*  *March 2014*  *January 2014*  *January 2014*  *February 2012* | |