Martin Skarzynski Laptev

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Mission

My goal is to lead the next generation of scientists and engineers in building solutions that integrate substantive expertise from diverse fields with machine intelligence. Through my work, I strive to promote open source software, such as the <u>Quarto</u> publishing system, which I use to build dashboards, presentations, reports, websites, and other digital deliverables. Overall, I aim to leverage my broad scientific background and technical expertise to help transform the promises of science and technology into a better future for all of humanity.

Experience

Chief Technology Officer, Ireni Co

2024:

- Builds applications based on the Dec measurement system
- Offers freelance consulting services to clients

Lead Instructor, General Assembly

2019:

- Teaches open-enrollment and enterprise courses such as:
 - React Development Data Analytics Data Science
 - Python Programming Web Development

Lead Instructor, Data Society

2019:

- Provides enterprise clients with training in:
 - Machine Learning
 Generative AI
 DevOps & MLOps
 Python & R Programming
 Text Analysis & NLP

Senior Domain Lead, Amazon Web Services

2022:2024

- Provided customers with scientific and technical expertise in:
 - Computer Vision
 Genomics
 Data Architecture
 Machine Learning
 Real World Evidence
- Built Artificial Intelligence (AI) solutions and Machine Learning Operations (MLOps) systems using:
 - Amazon SageMaker
 Amazon EventBridge
 AWS Developer Tools
 AWS Lambda
 AWS IAM
 - Amazon EMR
 AWS Databases
 AWS Service Catalog
- Obtained 3 AWS certification
 - <u>Practical Data Science</u> <u>Cloud Practitioner</u> <u>Solutions Architect Associate</u>

Adjunct Professor, Virginia Tech

2021:2024

- Taught two graduate courses for the Computer Science and Statistics Departments:
 - Machine Learning
 Data Analytics

Vice President, Data Community DC

2022:

• Leads a non-profit organization that supports eleven Meetup groups

AI Engineering Manager, Booz Allen Hamilton

2019:2023

- Led a team of data scientists and software developers working on a cyber intelligence application
- Spearheaded interdisciplinary COVID-19 <u>visualization</u>, <u>genomics</u>, and statistical modeling efforts
- Obtained the Microsoft Azure Data Scientist Associate certification

Biomedical Scientist, National Institutes of Health

2009:2022

- Integrated clinical, laboratory, epidemiologic, genomic, and medical imaging data
- Combined deep learning and statistical inference using stacked ensembles
- Conducted genomic analysis of immune and cancer cells
- Developed and tested pharmaceutical and immunotherapeutic agents
- Quantified cancer cell signaling pathways
- Mentored trainees from various NIH training programs including:
 - SIP MRSP HiSTEP

Bioinformatics and Data Science Co-Chair, FAES

2014:2021

- Co-administered an academic program with over twenty faculty members
- Taught three graduate data science courses:
 - Python Programming Text Mining
 - <u>Text Mining</u> <u>Applied Machine Learning</u>
- Taught graduate biotechnology workshops on various topics including:
 - <u>Pharmacometrics</u> <u>Cellular Immunology</u> <u>Flow Cytometry</u>

Adjunct Professor, George Washington University

2015:2016

- Taught two undergraduate courses for the Women's Leadership Program:
 - Biology of Organisms Women and Leadership

Education

• MPH, Epidemiology and Biostatistics, <u>Johns Hopkins University</u>	2018
• PhD, Tumor Biology, Georgetown University	2015
• MS, Biotechnology, <u>Jagiellonian University</u>	2009
• BA, Biology, St. Mary's College of Maryland	2007

Publications

• Potentiating [mAb] therapy by targeting complement C3 [] on lymphoma cells	2025
• Recalibration of a deep learning model [] to inform lung cancer screening intervals	2023
• [COVID] genome-based severity predictions correspond to [] higher viral load	2022
• Linking genotype to phenotype [] in [COVID] []	2022
• Variants in [COVID] associated with mild or severe outcome	2021
• Using prediction models to reduce [] disparities in [] lung cancer screening []	2021
• Pathogenic role of [BCR] signaling and canonical NF-κB activation in [MCL]	2016
• Interactions between ibrutinib and anti-CD20 antibodies []	2016
• Health disparities in the immunoprevention of [HPV] [] associated malignancies	2015
• Designing the furin-cleavable linker in recombinant immunotoxins []	2015
• Harnessing the Fcµ receptor for [] therapy of [CLL]	2014

Awards

• Community Contribution of the Year Category Finalist, AWS Builder Awards	2023
• Artificial Intelligence Solutions Architect Award, BAH Emergent Skills Program	2022
• Fellowship Research Award, Cancer Prevention Fellowship Program	2019
• Fellows Award for Research Excellence, National Institutes of Health	2015
• Orloff Science Award, National Heart, Lung, Blood Institute	2014
• Director's Science Award. National Heart, Lung, Blood Institute	2014

Languages

• <u>ILR 5</u>: English, Polish • <u>ILR 4</u>: Spanish, Russian • <u>ILR 2</u>: French, Portuguese

Skills

