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 Quarto 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
  - DevOps & MLOps
  - Python & R Programming
  - Generative AI
  - Graph Analytics
  - Text Analysis & NLP

Senior Domain Lead, Amazon Web Services *2022:2024*

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

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 visualization, genomics, 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
  - Applied Machine Learning
- Taught graduate biotechnology workshops on various topics including:
  - Pharmacometrics
  - Cellular Immunology
  - Flow Cytometry

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, Johns Hopkins University *2018*
- **PhD**, Tumor Biology, Georgetown University *2015*
- **MS**, Biotechnology, Jagiellonian University *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

- ILR 5: English, Polish
- ILR 4: Spanish, Russian
- ILR 2: French, Portuguese

Skills