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.

Recent Experience

Lead Instructor, General Assembly *July 2019 - Present*

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

Lead Instructor, Data Society *October 2019 - Present*

- Provides enterprise clients with training in:
  - Machine Learning
  - DevOps
  - Python Programming
  - R Programming
  - Graph Analytics
  - Natural Language Processing

Vice President, Data Community DC *April 2022 - Present*

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

Adjunct Professor, Virginia Tech *September 2021 - December 2023*

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

Senior Domain Lead, Amazon Web Services *April 2022 - February 2023*

- 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
  - Solutions Architect Associate
  - Cloud Practitioner
  - Practical Data Science

AI Engineering Manager, Booz Allen Hamilton *October 2019 - March 2022*

- 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 *June 2009 - April 2021*

- 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 *January 2014 - May 2020*

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

Adjunct Professor, George Washington University *January 2015 - May 2015*

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

Education

- **MPH**, Epidemiology and Biostatistics, Johns Hopkins University *May 2018*
- **PhD**, Tumor Biology, Georgetown University *May 2015*
- **MS**, Biotechnology, Jagiellonian University *June 2009*
- **BA**, Biology, St. Mary's College of Maryland *May 2007*

Select Publications

- Recalibration of a deep learning model [...] to inform lung cancer screening intervals *March 2023*
- SARS-CoV-2 genome-based severity predictions correspond to [...] higher viral load *May 2022*
- Linking genotype to phenotype [...] in SARS-CoV-2 [...] *April 2022*
- Variants in SARS-CoV-2 associated with mild or severe outcome *June 2021*
- Using prediction models to reduce [...] disparities in [...] lung cancer screening [...] *January 2021*
- Pathogenic role of [BCR] signaling and canonical NF-κB activation in [MCL] *July 2016*
- Interactions between ibrutinib and anti-CD20 antibodies [...] *January 2016*
- Health disparities in the immunoprevention of [HPV] [...] associated malignancies *December 2015*
- Designing the furin-cleavable linker in recombinant immunotoxins [...] *May 2015*
- Harnessing the Fcμ receptor for [...] therapy of [CLL] *October 2014*

Select Awards

- **Community Contribution of the Year Category Finalist**, AWS Builder Awards *February 2023*
- **Artificial Intelligence Solutions Architect Award**, BAH Emergent Skills Program *January 2022*
- **Trans-Fellowship Research Award**, Cancer Prevention Fellowship Program *June 2019*

Natural Languages

- **Native**: English, Polish
- **Professional**: Spanish, Russian
- **Working**: French, Portuguese