Martin Skarzynski Laptev

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Cloud Computing Data Science Machine Learning Technical Management Software Engineering Solution Architecture

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 various courses such as:
  - Data Analytics
  - Front-End Web Development
  - Tech Excellence Data Science
  - Python Programming
  - React Development

Lead Instructor, Data Society *October 2019 – Present*

- Teaches workshops such as:
  - Machine Learning
  - Data Science Bootcamp
  - Natural Language Processing
  - Deep Learning
  - Data Science Academy
  - Python Programming
  - DevOps
  - Data Visualization
  - R Programming

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

- Leads a nonprofit 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 COVID19 visualization, genomics, and statistical modeling efforts
- Obtained the *Microsoft Azure Data Scientist Associate* certification

Adjunct Professor, George Washington University *September 2021 – December 2023*

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

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 four different NIH training programs:
  - Summer Internship Program
  - Medical Research Scholars Program
  - NIH HiSTEP
  - Biomedical Research Training Program for Individuals from Underrepresented Groups

Bioinformatics and Data Science Co-Chair, FAES ***January 2014 – May 2020***

- Coadministered 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 nine graduate biotechnology workshops:
  - Pharmacometric Analyses using R
  - Cellular Immunology
  - Research Tools for Studying Disease
  - Junior Scientist Training Program
  - Recombinant DNA Methodology
  - Genetics Institute
  - Immunochemistry and Antibodies
  - Cancer Prevention
  - Flow Cytometry

Select Publications

JAMA Netw Open, [...] a deep learning model [...] to inform lung cancer screening intervals *March 2023*

Glob Health Epidemiol Genom, SARS-CoV-2 genome-based severity predictions correspond to [...] higher viral load *February 2023*

Virological, Linking genotype to phenotype [...] in SARS-CoV-2 [...] *April 2022*

Evol Med Public Health, Variants in SARS-CoV-2 associated with mild or severe outcome *June 2021*

J Natl Cancer Inst, Using prediction models to reduce [...] disparities in [...] lung cancer screening [...] *January 2021*

Clin Cancer Res, Interactions between ibrutinib and anti-CD20 antibodies [...] *January 2016*

Bioconjug Chem, Designing the furin-cleavable linker in recombinant immunotoxins [...] *May 2015*

Front Public Health, Health disparities in the immunoprevention of [HPV] [...] associated malignancies *December 2015*

Blood, Pathogenic role of [BCR] signaling and canonical NF-κB activation in [MCL] *July 2016*

Cancer Res, Harnessing the Fcμ receptor for [...] therapy of [CLL] *October 2014*

Education

MPH, Epidemiology and Biostatistics *May 2018*

PhD, Tumor Biology *May 2015*

MS, Biotechnology *June 2009*

BA, Biology *May 2007*

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*

TransFellowship Research Award, Cancer Prevention Fellowship Program *June 2019*

Fellows Award for Research Excellence, National Institutes of Health *June 2015*

Orloff Science Award, National Heart, Lung, Blood Institute *October 2014*

Director's Science Award, National Heart, Lung, Blood Institute *January 2014*