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

Lead Instructor, General Assembly

2019:

Data Science

- Teaches open-enrollment and enterprise courses such as:
 - <u>React Development</u> <u>Data Analytics</u>
 - 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
 Genomics
 Data Architecture
 Machine Learning
 Real World Evidence
- Built Artificial Intelligence (AI) solutions and Machine Learning Operations (MLOps) systems using:
 - Amazon SageMaker
 AWS Developer Tools
 AWS Lambda
 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 LearningData 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
 - 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 OrganismsWomen 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

Skills

Airflow Alacritty Amazon Web Services Anaconda API Gateway Asana Bash
Blender B Bootstrap Chartjs CodePen CodePen CodePen Conda-forge CSS D3
Image: Dask of Dask of Dask of Dash of Dask of
EC2 BECS EKS EKS Elasticache C Elastic Load Balancing E Emacs Express Fargate
FastAPI Flask GIMP Sit GitHub Scitlub Actions GitLab GitPod WGNU
Homebrew ☐ HTML HTTPie HuggingFace HuggingFace Hugg
Js JavaScript ♦ Jira ♠ JSON ♣ Julia ♡ Jupyter K Keras ♠ Kubernetes № Lambda ▶ LaTeX
⚠ Linux 💕 Lua 💣 macOS 🚾 Markdown 🧡 Mermaid 🌘 MongoDB 🔊 MySQL 🔊 Neovim
Node
PostgreSQL PyCharm A Pydantic PyPI PyScaffold Pytest Python O PyTorch
(a) Quip (b) RDS (c) Redshift (c) Redshift (c) Redshift (c) Redshift
Route 53 R Studio S Sass S SciPy Secrets Manager S Selenium Sklearn
Slack Spacemacs Spacy Spack Spark Spain Sphinx SQLAlchemy SQLite Space
⊕ SQS Streamlit Swift TensorFlow ⊝ Tidyverse tmux Ts Typescript W Vim
VSCode VSCodium WS WebStorm YAML Sh

Publications

• Potentiating [mAb] therapy by targeting complement C3 [] on lymphoma cells	lubmitted
• 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
• <u>Using prediction models to reduce [] disparities in [] lung cancer screening []</u>	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