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

Lead Instructor, General Assembly   *2019:*

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

Lead Instructor, Data Society   *2019:*

- Provides enterprise clients with training in:
  - Machine Learning
  - Generative AI
  - DevOps & MLOps
  - Graph Analytics
  - 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
  - Data Visualization
  - Real World Evidence
- Built Artificial Intelligence (AI) solutions and Machine Learning Operations (MLOps) systems using:
  - Amazon SageMaker
  - Amazon EventBridge
  - Amazon EMR
  - AWS Developer Tools
  - AWS CloudFormation
  - AWS Databases
  - AWS Lambda
  - AWS IAM
  - 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

Airflow | Alacritty | Amazon Web Services | Anaconda | API Gateway | Asana | Bash

Blender | Bootstrap | Chartjs | CodePen | CloudWatch | conda-forge | CSS | D3 | Dask

Databricks | DataGrip | Django | Docker | DocumentDB | DVC | DynamoDB | EC2

ECS | EKS | Elasticache | Elastic Load Balancing | Emacs | Express | Fargate

FastAPI | Flask | GIMP | Git | GitHub | GitHub Actions | GitLab | GitPod | GNU

Homebrew | HTML | HTTPie | HuggingFace | Hyper | IAM | Inkscape | iTerm

JavaScript | Jira | JSON | Julia | Jupyter | Keras | Kubernetes | Lambda | LaTeX

Linux | Lua | macOS | Markdown | Mermaid | MongoDB | MySQL | Neovim

Node | NPM | NumPy | OBS | Observable | Obsidian | OpenCV | Pandas | Plotly

PostgreSQL | PyCharm | Pydantic | PyPI | PyScaffold | Pytest | Python | PyTorch

Quip | R | RDS | React | README | Read The Docs | Redshift | Reveal

Route 53 | RStudio | S3 | Sass | SciPy | Secrets Manager | Selenium | Sklearn

Slack | Spacemacs | spaCy | Spark | Sphinx | SQLAlchemy | SQLite | SES

SQS | Streamlit | Swift | TensorFlow | Tidyverse | tmux | Typescript | Vim

VSCode | VSCodium | WebStorm | YAML | zsh