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](https://quarto.org) 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](https://generalassemb.ly)   *2019:*

- Teaches [open-enrollment](https://generalassemb.ly) and enterprise courses such as:
  - [React Development](https://generalassemb.ly)
  - [Data Analytics](https://generalassemb.ly)
  - [Data Science](https://generalassemb.ly)
  - [Python Programming](https://generalassemb.ly)
  - [Web Development](https://generalassemb.ly)

Lead Instructor, [Data Society](https://datasociety.com)   *2019:*

- Provides enterprise clients with training in:
  - Machine Learning
  - DevOps & MLOps
  - Python & R Programming
  - Generative AI
  - Graph Analytics
  - Text Analysis & NLP

Vice President, [Data Community DC](https://datacommunitydc.org)   *2022:*

- Leads a non-profit organization that supports [eleven Meetup groups](https://datacommunitydc.org)

Adjunct Professor, Virginia Tech   *2021:2024*

- Taught two graduate courses for the Computer Science and Statistics Departments:
  - [Machine Learning](https://vt.edu)
  - [Data Analytics](https://vt.edu)

Senior Domain Lead, [Amazon Web Services](https://aws.amazon.com)   *2022:2024*

- Provided customers with scientific and technical expertise in:
  - [Computer Vision](https://aws.amazon.com)
  - [Data Architecture](https://aws.amazon.com)

- 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

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
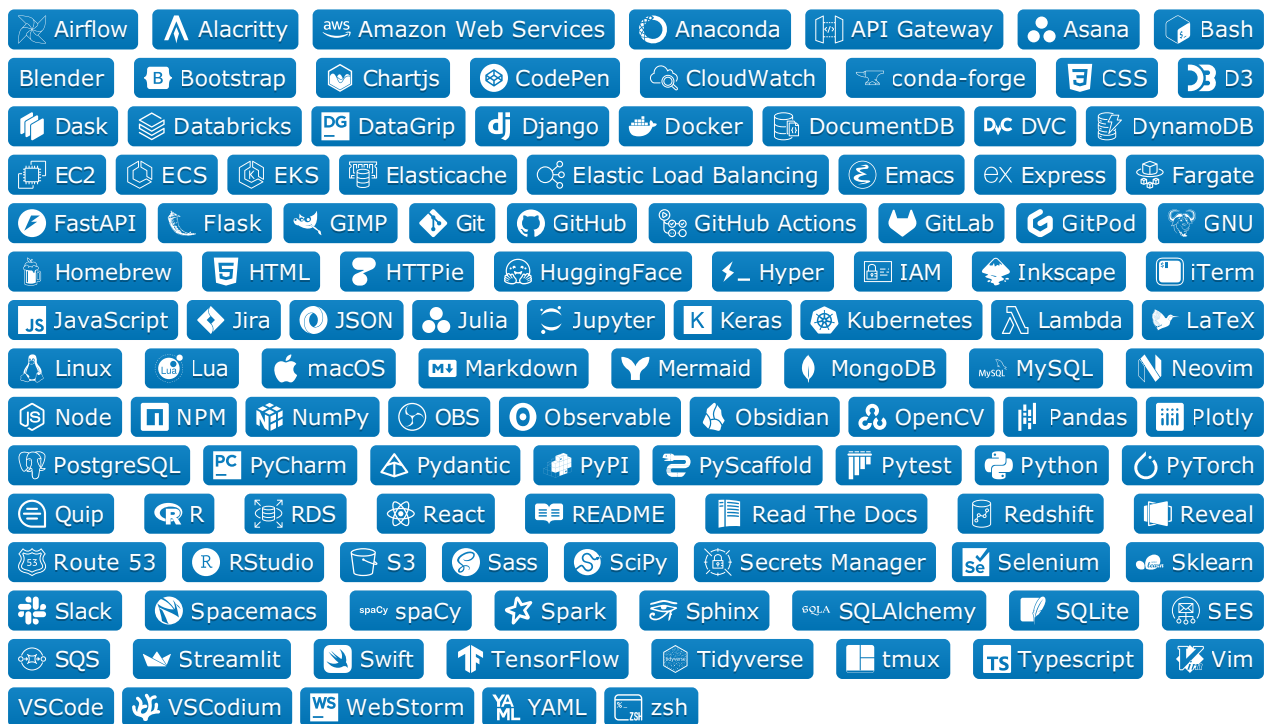
Adjunct Professor, George Washington University *2015:2016*

- • 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*

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

Publications

- Potentiating [mAb] therapy by targeting complement C3 […] on lymphoma cells — *Submitted*
- 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 3**: French, Portuguese