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
  - Data Analytics
  - Data Science
  - 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
  - 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
  - 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