

Dr.Sc. Elina Koletou (She/Her)

Get Things Done. Organize Complexity. Unite Teams for Success.



ABOUT ME

Personal Interests: AI / ML, MLOps, Data Democratization, Digital Transformation, Personalized Healthcare, Cancer Research, Drug Discovery, Mental Health, Open Communication, Diversity & Belonging.

EXPERIENCE

APR 2019 - PRESENT
Senior Data Scientist, Basel, Switzerland

Roche

- **Roles:** Professional Scrum Product Owner, Service manager, Community Manager, Ambassador of data democratization and FAIR principles, Data Scientist
- **Responsibilities:** Management of resources/products/change/stakeholders, Definition of scientific/technical strategies, Operationalization of AI models
- **Analytics:** Feature selection for target identification, Supervised learning for cheminformatics, Risk analysis for patient enrichment
- **Data:** Real World Data from Flatiron, Genetic data from FMI, Small-molecule chemical compounds, Oncology, Safety
- **New skills:** MLOps, Cloud technologies, Scrum
- **Projects:** AutoML tools evaluation, Operationalisation of AI

MAR 2015 – DEC 2018
Pre-Doc Researcher, Zurich, Switzerland

IBM Research Europe

- **Analytics:** Unsupervised machine learning, Network analysis, Dictionary learning
- **Data:** Prostate cancer multi-omic patient data from TCGA
- **Project:** Prostate cancer patient stratification with MINING: Molecular Signatures via Nested Dictionary Learning

FEB 2015 – DEC 2018
Pre-Doc Researcher, Zurich, Switzerland

University Hospital Zurich

- **Analytics:** Supervised machine learning, Survival analysis
- **Data:** Large-scale Tissue Microarray (TMA) and Oncoscan CNV data from cancer patients
- **Projects:** Advanced head and neck squamous cell carcinoma, Malignant Melanoma, Endometrial carcinoma

MAR 2014 – DEC 2014
Research Assistant, Zurich, Switzerland

University of Zurich

- **Analytics:** Genome sequence analysis, Tandem repeat polymorphism statistical analysis, PCR DNA amplification, Agarose gel Electrophoresis and Electroporation
- **Data:** Colorectal cancer genomic patient data from TCGA
- **New skills:** Experimental protocol documentation and basic training in lab safety and good laboratory practices
- **Projects:** Comprehensive characterization of tandem repeat instability in 62 colorectal tumors

OCT 2013 – JAN 2014
Research Assistant, Zurich, Switzerland

ETH Zurich

- **Methods:** Python programming, high performance computing with LSF job submission scheduler
- **Data:** UniProt sequences from PFAM protein domains and families
- **Project:** Testing and contributing to a python software package

MAY 2012 – SEP 2012
Research Assistant, Thessaloniki, Greece

University of Macedonia

- **Methods:** ANSI C programming, Algorithmic complexity
- **Data:** Nucleic Acid and Amino acid sequences from Swiss Prot

CONTACT

Swiss resident permit C
Canton of Zurich
elinakoletou.com

SKILLS

Soft Skills

- Project management
- Professional communication
- Stakeholder engagement
- Event coordinator
- Career coach

Hard Skills

- MLOps
- Machine Learning
- Data analysis
- Programming
- Bioinformatics
- Web design

Programming languages

Python, Bash, R, LaTeX, MATLAB, C/C++, Java, Visual Basic, SQL, HTML, CSS

Tech Stack

Git, Kubeflow, CICD, Conda, Poetry, Docker, Kafka, FastAPI

Languages

English (proficient)
Greek (native)
German (basic)

Certifications

Professional Scrum Product Owner™ I (PSPPO I), Scrum.org, Issued Dec 2020, No Expiration Date



PUBLICATIONS

ORCID: 0000-0003-4539-5117

Prostate cancer patient stratification with MINING: Molecular Signatures via Nested Dictionary Learning. ME Koletou. ETH Zurich. 2019.



A survey of tandem repeat instabilities and associated gene expression changes in 35

- [Project](#): Study of multi-pattern string matching algorithms in biological data

 JUL 2011 – SEP 2011
 Web programmer, Thessaloniki, Greece

Verus Plus



- [Methods](#): Web Developing and Design in ASP.NET,
- [New skills](#): E-marketing, E-Commerce

 MAR 2014 – DEC 2014
 Assistant Manager, Thessaloniki, Greece

Vida Loca Dance Studios



- [Responsibilities](#): Teaching children in Latin & Ballroom dances
- [New skills](#): Customer support and administrative tasks

EDUCATION

 NOV 2015 – MAR 2019
 ETH Zurich, Switzerland



Dr.Sc.

- Institute of Molecular Systems Biology, Department of Biology
- Funded by SystemsX.ch, the Swiss Initiative in Systems Biology

 SEP 2012 – DEC 2014
 ETH Zurich, Switzerland


M.Sc.

- Computational Biology and Bioinformatics (CBB) M.Sc. Program
- Department of Computer Science (GPA: 5.40/6)

 JAN 2011 – JUN 2011
 University of Salford, Manchester, UK

Erasmus



- Visiting European student (GPA: 86/100)

 SEP 2007 – NOV 2012
 University of Macedonia, Thessaloniki, Greece

B.Sc.

- Department of Applied Informatics (GPA: 9.09/10)

VOLUNTEER EXPERIENCE

 MAR 2016 – SEP 2016
 ETH Zurich, Switzerland



Advisory committee member

- Revision of the new curriculum structure of the Computational Biology and Bioinformatics (CBB) M.Sc. Program

 FEB 2015
 ETH Zurich Foundation, Switzerland

Panel Moderator & Liaison


- 2nd Annual Hellenic Gathering supported by Hellenic Student Association of Zurich, the Stavros Niarchos Foundation and the ETH Zurich Foundation

 MAY 2014 – MAY 2015
 Greek Student Association, Zurich, Switzerland


Elected Vice-President

- Founded in 1875, the association is the binding ring of the Greeks who study in Zurich, either at the University of Zurich or at the ETH Zurich
- Guiding students in their first steps in Zurich and their studies
- Organizing networking events, cultural festivals and field trips

[colorectal cancers](#). T Bilgin Sonay, M Koletou, A Wagner. BMC genomics 16 (1), 1-11. 2015.

 [Comprehensive characterization of tandem repeat instability in 62 colorectal tumors](#). M. Koletou. ETH-Zürich. 2014.

AWARDS

 [Scholarship](#) issued by the Bodossaki Foundation in Athens, Greece, for the duration of my postgraduate studies in Switzerland, 2012-2014.

 [Academic Merit Award & Scholarship](#), 1st ranking place in Department of Applied Informatics of the University of Macedonia. Issued by State Scholarships Foundation (I.K.Y.) in Greece, Sep 2008.

 [Academic Merit Award & Scholarship](#), 1st ranking place in Department of Applied Informatics of the University of Macedonia. Issued by State Scholarships Foundation (I.K.Y.) in Greece, Sep 2007.