Elio Nushi

CONTACT & PERSONAL INFORMATION

Address: Pietari Kalmin katu 5, Exactum B211, Helsinki, Finland, 00560
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Website: enushi.github.io
Date of Birth: 05 August 1993
Nationality: Albanian

EDUCATION

University of Helsinki (UH), Helsinki, Finland
PhD, Computer Science, GPA: 5.0/5.0   Sep. 2020 - Present
- Research Topic: I am developing probabilistic and statistical methods for computational biology. One important goal of the research is to understand the regulation of toxin production in the potentially deadly environmental pathogen *Clostridium botulinum.*
- Supervisor: Antti Honkela, PhD, University of Helsinki

Åbo Akademi University (ÅAU), Turku, Finland
MPhil, Computer Science, GPA: 5.0/5.0   Aug. 2018 - Jun 2020
- Master's Thesis Title: *On the Applicability of Network Science in Personalized Medicine*
- Supervisors: Ion Petre, PhD, University of Turku & Eugen Czeizler, PhD, Åbo Akademi University

University of New York Tirana (UNYT), Tirana, Albania
BSc, Computer Science, GPA: 3.8/4.0   Sep. 2013 - Jun. 2017
- Senior Project's Title: *On the performance of Linux Operating System under XEN, Oracle VM VirtualBox and VMware Player Hypervisors*
- Adviser: Marenglen Biba, PhD, University of New York Tirana

RESEARCH & WORK EXPERIENCE

Postdoctoral Research
    University of Helsinki, Helsinki, Finland   Feb. 2025 - Present
Project investigator: Johanna Björkroth, PhD, University of Helsinki
- Computational modelling of the microbiome

Doctoral Researcher
    University of Helsinki, Helsinki, Finland   Sep. 2020 - Jan. 2025
Supervisor: Antti Honkela, PhD, University of Helsinki
- Develop probabilistic and statistical methods for omics time series

Software Developer
    If P&C Insurance Ltd, Turku, Finland   Aug. 2019 - Jul. 2020
- Worked as a full stack C#.Net developer
- Responsible for maintaining and developing the Nordic customer insurance portal of the company

Software Developer
    FCE Services, Tirana, Albania   Oct. 2017 - Jul. 2018
- Worked as PHP Back-End Developer for a client company
- Responsible for managing e-commerce websites using the Magento platform

Software Developer
    Protech, Tirana, Albania   May 2017 - Oct. 2017
- Developed the billing system software for a VoIP company using PHP and JavaScript
- Automated the process of generating soft switch (Asterisk) configurations for VoIP clients to help the NOC department

Teaching Assistant

Probabilistic models, variational inference and probabilistic programming -
Nordic ProbAI School 2022, Helsinki   Jun. 2022
Data Analysis with Python -
University of Helsinki, Helsinki   Nov. 2021 - Aug. 2024
Algorithms and Complexity -
University of New York Tirana, Tirana   Feb. 2017 - Jun. 2017
Calculus II -
Univeristy of New York Tirana, Tirana   Feb. 2016 - Jun. 2016

DATA SCIENCE
PROJECTS
- Project on predicting true vs fake news titles (Advanced Machine Learning)
- Project on applying centrality methods for personalized medicine (Master's Thesis)
- Project on applying statistical methods for multiple myeloma patients' dataset (Lab Internship)
- Project on the study of genes connected with autism (Computational Biology)

COMPUTER
SKILLS AND
COMPETENCES
- Programming languages and frameworks: Python, Django, Java, Java Server Faces (JSF), VB.NET, C#.NET, ASP.NET, PHP, JavaScript, HTML, CSS, Bootstrap, and PL SQL
- Database systems: Oracle, MySQL, SQLite, and Microsoft SQL Server
- System administration: Linux Server Configuration, set up and configure computer network devices

PERSONAL
RESEARCH
FUNDING AND
SCHOLARSHIPS
- Four year funding from the Helsinki Institute of Information Technology (HIIT) Sep. 2020 - Dec. 2024
- Scholarship consisting of full tuition fee waiver and excellence award to cover the living expenses during my master's studies from Åbo Akademi University (ÅAU) Aug. 2018 - Jul. 2020

PUBLICATIONS
Book Chapters
1. Network Modelling Methods for Precision Medicine (Nushi, Elio et al., *Systems Biology Modelling and Analysis: Formal Bioinformatics Methods and Tools*)

CONFERENCES
& WORKSHOPS
Workshops
1. Poster presentation at ISMB (Intelligent Systems for Molecular Biology 2024), Montreal, Canada   Jul. 2024
2. Speaker at MASAMB23 (Annual Workshop on Mathematical and Statistical Aspects of Molecular Biology 2023), Johannes Kepler University, Linz, Austria   Sep. 2023
3. Attended ELLIS Summer School on Machine Learning for Healthcare and Biology, Manchester, UK   Jun. 2023
4. Attended Oxford Machine Learning Summer School (OxML 2022), ML x HEALTH, Oxford, UK   Aug. 2022

LANGUAGES
- Albanian: Native
- English: Fluent
- Italian: Fluent
- Finnish: Beginner

EXTRA-
CURRICULAR
ACTIVITIES
- Board member of the Finnish Society for Bioinformatics   May 2023 - Present
- University of Helsinki student ambassador   Jan. 2022 - Aug. 2023
- Volunteer member in the organizing committee of ProbAI 2022 summer school
- Sports: Gym, Judo, Swimming
- Music: Play Violine