

Edo Danilyan

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Summary

Microbial ecologist and interdisciplinary researcher with a background in biotechnology, geospatial analysis, and computational biology. Experienced in data-driven discovery through remote sensing, satellite imagery, ecological fieldwork, and molecular research. Skilled in R and Python for modeling, visualization, and statistical inference.

Education

UNIVERSITY OF VIENNA

Doctoral
FWF Cluster of Excellence: Microplanet Project

Vienna, Austria
July 2024-Present

UNIVERSITY OF SZCZECIN

Student Exchange, Biology. GPA 4/4
Erasmus+ Scholarship

Szczecin, Poland
October 2022-February 2023

INSTITUT TEKNOLOGI SEPULUH NOPEMBER

Master's, Biotechnology. GPA 4/4
Fastrack and Fresh Graduate Scholarship

Surabaya, Indonesia
2021-2023

CHULALONGKORN UNIVERSITY

Student Exchange, Biology. GPA 3.96/4
ASEAN & NON-ASEAN Scholarship

Bangkok, Thailand
January 2020 – May 2020

INSTITUT TEKNOLOGI SEPULUH NOPEMBER

Undergraduate, Biology. GPA 3.79/4
Bidikmisi On-Going Scholarship

Surabaya, Indonesia
2018-2022

Technical Skills

Quantitative & Computational Biology: R (tidyverse, ggplot2, dplyr, caret), Python (pandas, matplotlib, seaborn, scikit-learn), SPSS, SQL

Geospatial & Remote Sensing: Satellite imagery, R (terra, sf, geodata, elevatr, rayshader), Python (rasterio, geopandas), QGIS

Bioinformatics: Bioconductor R, PyMol, computational biology pipelines

Scientific Communication & Tools: Tableau, Hugo, Git, Markdown, VS Code

Languages: English (C1 proficiency)

Experience

GENERASI BIOLOGI INDONESIA FOUNDATION

Researcher (Intern)

Remote
October 2021 – February 2022

- Designed and implemented compound-target interaction studies using molecular docking techniques.

BRIN Republik Indonesia

Researcher (Student Intern)

Bogor, Indonesia
June 2021 – September 2021

- Investigated the effects of nutrient media on microalgal growth dynamics.
- Produced reproducible data visualizations and contributed to statistical interpretation of results with R lang.
- Semi-finalist in the APEC YES Challenge 2021.

KUMAMOTO UNIVERSITY

Collaborative International Online Learning

Remote
October 2020 – November 2020

- Collaboration program between Institut Teknologi Sepuluh Nopember and Kumamoto University focused on biomass utilization as a renewable energy source.
- Developed a microbe-based waste-to-energy system proposal for Surabaya using statistical and geospatial tools.
- Collaborated in international team to assess public waste data and propose sustainable solutions.

Leadership & Activities

KELOMPOK STUDI BURUNG LIAR PECUK

Staff of the Multimedia Division

Surabaya, Indonesia

September 2019 – January 2021

- Contributed wildlife photographs for bird identification archives and public outreach.
- Supported content development for a monthly digital magazine focused on avian ecology.

CHULALONGKORN UNIVERSITY DEBATING SOCIETY

Member

Bangkok, Thailand

January 2020 – May 2020

- Participated in weekly competitive training sessions.
- Selected for national championship preparation team representing the university.

Honor & Awards

- Most Outstanding Graduate, Institut Teknologi Sepuluh Nopember (Master's Degree)
- Best Presenter, International Conference of Science and Technology (ICOST) 2023
- Erasmus+ Scholarship Awardee
- Top 10 Finalist, Battle of Minds Competition by British American Tobacco
- 3rd Place, International Business Competition ICoBioS/OBC 2022
- Fresh Graduate Scholarship Awardee, Institut Teknologi Sepuluh Nopember
- Fast Track Scholarship Awardee, Institut Teknologi Sepuluh Nopember
- Semi-Finalist, APEC-YES Challenge 2021
- Gold Medalist & Best Impact Paper, Indonesia Inventor Days 2020
- Special Award by MIICA, World Invention Competition and Exhibition (IYSA)
- Gold Medalist, World Invention Competition and Exhibition (IYSA)
- ASEAN & NON-ASEAN Countries 2019 Scholarship Awardee
- Bidikmisi Scholarship Awardee

Portfolio

Interactive Dashboard and Visualization – [Dashboard Collection](#)

- Developed an interactive dashboard using R (flexdashboard) for exploratory data analysis on tetanus infection and Palmer penguins datasets. The dashboard features multiple navigable pages for enhanced user experience.

Data Analytics – [Personal Spotify playback analysis](#)

- Conducted personal Spotify playback activity analysis using R's tidyverse package. The project involved data wrangling and visualization to uncover listening patterns.

Static Website – [Personal website of Edo Danilyan](#)

- Built and maintained a static personal website using Hugo in Visual Studio Code. Customized the site's visual elements to align with personal branding and showcase [projects](#).

Publication

- Agata Poniewierska-Baran, Łukasz Zadroga, **Edo Danilyan**, Paulina Małkowska, Paulina Niedźwiedzka-Rystwej, Andrzej Pawlik (2023). MicroRNA as a Diagnostic Tool, Therapeutic Target and Potential Biomarker in Cutaneous Malignant Melanoma Detection—Narrative Review. *International Journal of Molecular Sciences*.
- Nur Hidayatul Alami, Afan Hamzah, Bieby Voijant Tangahu, Idaa Warmadewanti, Ary Bachtiar Krishna Putra, Adi Setyo Purnomo, **Edo Danilyan**, Hellen Melati Putri, Citra Nesa Aqila, Aulia An Nisaa Dewi, Ayudia Pratiwi, Salsabilla Khairunisa Putri, Arif Luqman (2022). Microbiome profile of soil and rhizosphere plants growing in traditional oil mining land in Wonocolo, Bojonegoro, Indonesia. *International Journal of Phytoremediation*.
- Samboon, N. Ouying, P. Wannasrichan, W. Thoraneenityan, N. Achawong, T. Supatniyapong, K. Weerasopon, K. Khayunkan, C. **Danilyan**, E. Hermanto, M. Kadkanla, S. 2020. In Vitro Point-of-Care Diagnostic Assays for SARS-CoV-2 (COVID-19). *Buddhachinaraj Medical Journal*. 37 (2).
- Luqman, Arif., Alami, N. H., **Danilyan, E.**, Azhari, B. A. Z., Dama, B. F. 2021. Bakteriologi Spesies Kosmopolit. Surabaya: *Departemen Biologi ITS*.
- Iska Desmawati, Angga Gian, Rizki Widyaningsih, Zulfan Febriawan, Saniah Kusnatur, Ory Kurnia, Alwi Muhammad, Dimas Wildan and **Edo Danilyan**. 2021. Dry Season Bryophytes in Cangar Hotspring-Batu, East Java, Indonesia. *Ecology, Environment and Conservation Paper*. Vol:27, No. (90-93).