Nikolai G. Vetr

Contact Information

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GitHub: github.com/NikVetr/

Education

Postdoc, Montgomery Lab, Stanford University — *Current*
Pathology + Genetics + Biomedical Data Science

PhD, University of California, Davis — *2020*
Dissertation: *Exploring and Extending Multivariate Brownian Diffusion Models of Phenotypic Evolution for Bayesian Phylogenetic Inference*
Anthropology + Population Biology + Data Science & Informatics

BA, Vanderbilt University — *2013*
Earth & Environmental Sciences + Ecology, Evolution & Organismal Biology
Departmental Honors, *summa cum laude*

Recent Work

Abell, N., **Vetr, N.***, Montgomery, S., et al. 2024. *A Survey of High Depth Allele-Specific Expression Across Normal Tissues and Ovarian Cancers.* In Prep.

Vetr, N., Gay, N., and Montgomery, S. 2024. *The impact of exercise on gene regulation in association with complex trait genetics.* Nature Communications 15(3346): 1-14. DOI: 10.1038/s41467-024-45966-w.

MoTrPAC Study Group†. 2024. *Temporal dynamics of the multi-omic response to endurance exercise training across tissues.* Nature 629(8010): 174-183. DOI: 10.1038/s41586-023-06877-w.

**dual first authorship*, †*Author Group: 2 (of 8)*

Leadership

Founder, Applied Bayesian Statistics Research Cluster, *UC-Davis* — *2019 - 2020*
President, Board of Directors, *Wild Animal Initiative* — *2020 - Present*
President, Board of Directors, *Rethink Priorities* — *2023 - Present*

Languages

Programming: R, Stan, BASH, Python, C++, CSS, HTML, JS
Natural: Russian, English, Spanish

Teaching

Associate Instructor, University of California, Davis — *2015 - 2020*
Human Evolution + Primate Evolution + Human Evolutionary Biology
Carpentries Instructor, Data & Software Carpentries — *2019*
Course Coordinator, Workshop in Applied Phylogenetics — *2019*

Selected Grants & Awards

NIH T15 — *2021*
Excellence in Data Science Community Training and Outreach — *2019, 2020*
Outstanding Graduate Student Teaching Award Nominee — *2016, 2019, 2020*
1st Place Picnic Day Exhibit Award in "Secrets of Nature" Category — *2017*
NSF Graduate Research Fellowship — *2015*

Service

Journal Review: *Evolution* (2017), *Science Communications* (2018), *Cell Reports* (2021), *Human Genetics and Genomics Advances* (2022)
Grant Review: *WAI Grants* (2021, 2022, 2023)

Skills & Interests

- Probability Models
- Multiomic Data Integration
- Time Series Modeling
- Bayesian Methods
- Monte Carlo Methods
- Causal Inference
- Computer Vision
- Artifical Neural Networks
- Population Genetics
- Optimization
- Science Communication
- Nat. Lang. Processing
- Evolutionary Biology
- Exercise Biology
- Population Genetics