Alexander Wolfgang Jung

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Personal information:

Dr. Alexander Wolfgang Jung
Postdoctoral researcher
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Education:

10/2018 - 09/2022	Ph.D. Computational Biology, University of Cambridge UK
09/2017 - 09/2018	M.Sc. Statistics with Data Science (with distinction), University of Edinburgh, UK
10/2016 - 09/2017	M.Sc. Survey Statistics (intermitted), University of Bamberg, Germany
10/2013 - 09/2016	B.Sc. Economics (with distinction), University of Bamberg, Germany

Employment:

01/2025 – current	Affiliated researcher, ETH AI Center, Zurich
07/2024 – current	Postdoctoral researcher, ETH Zurich, Biosystems Science and Engineering, Switzerland
06/2024 – current	Visiting scientist, Statistics Denmark, Denmark
01/2023 – current	Visiting scientist, EMBL-EBI, UK
02/2023 – 06/2024	Postdoctoral researcher, University of Copenhagen, Center for Protein Research Denmark
02/2023 – 06/2024	Research consultant, Statistics Denmark, Data Science Lab, Denmark
10/2018 – 09/2022	Predoctoral fellow, EMBL-EBI, AI in Oncology, UK
01/2017 – 11/2018	Research assistant, Kiel Institute of the World Economy, Poverty Reduction, Germany

Publications:

Preprints:

- Shmatko, A., ***Jung, A. W.**, Gaurav, K., Brunak, S., Mortensen, L. H., Birney, E., Fitzgerald, T., Gerstung, M. (2024). Learning the natural history of human disease with generative transformers. medRxiv. (AS, AWJ, KG contributed equally)
- ***Jung, A. W.**, Louloudis, I., Brunak, S., Mortensen, L. H. (2024). Targeted inference to identify drug repositioning candidates in the Danish health registries. medRxiv

Peer reviewd:

1. ***Jung, A. W.**, Holm, P. C., Gaurav, K., Hjaltelin, J. X., Placido, D., Mortensen, L. H., Birney, E., Brunak, S., and Gerstung, M. (2024). Multi-cancer risk stratification based on national health data: A retrospective modelling and validation study. The Lancet Digital Health 6 (6).
2. Westergaard, D., Jorgensen, F., Waaben, J., **Jung, A. W.**, Lademann, M., Hansen, T., Cremers, J., Ostrowski, S., Pedersen, O., Reguant, R., Jorgensen, I., Fitzgerald, T., Birney, E., Banasik, K., Mortensen, L. H., Brunak, S. (2024). Uncovering the heritable components of multimorbidities and disease trajectories using a nationwide cohort. Nature Communications 15 (1), 7457.
3. ***Jung, A. W.** and Gerstung, M. (2023). Bayesian Cox regression for large-scale inference with applications to electronic health records. The Annals of Applied Statistics, 17(2):1064–1085. (Joint corresponding authors)
4. Voehringer, H. S., Sanderson, T., . . . , **Jung, A. W.**, Saint, C., Sillitoe, J., Suciu, M., Goldman, N., Panovska-Griffiths, J., Birney, E., Volz, E., Funk, S., Kwiatkowski, D., Chand, M., Martincorena, I., Barrett, J. C., and Gerstung, M. (2021). Genomic reconstruction of the SARS-CoV-2 epidemic in England. Nature, 600(7889).

5. Fu, Y., **Jung, A. W.**, Torne, R. V., Gonzalez, S., Voehringer, H., Shmatko, A., Yates, L. R., Jimenez Linan, M., Moore, L., and Gerstung, M. (2020). Pan-cancer computational histopathology reveals mutations, tumor composition and prognosis. Nature Cancer, 1(8):800–810.

Funding:

2018 - 2022	EMBL Predoctoral Fellowship
2017	Highly Skilled Workforce Scholarship
2016	DAAD Promos
2016	Tuition Waiver University of Calgary

Patents:

2025	European Patent Office: Healthcare modeling: EP 24 180 299.0. (under review)

Presentations:

Contributed Talks:

2021	Cancer Research UK (CRUK) Cambridge Centre Early Detection 6th Annual Symposium (short talk)

Poster Presentations

2025	Royal Statistical Society (RSS) International Conference
2022	International Society for Bayesian Analysis (ISBA) World Meeting
2020	Cancer Research UK (CRUK) Cambridge Centre Early Detection 5th Annual Symposium

Teaching:

2025	Statistical Methods in Computational Biology - Teaching assistant (ETH Zurich)
2019	Bayesian Statistics - Instructor (EMBL-EBI)
2018	Introductory Statistics -Instructor (EMBL-EBI)

Professional Activities:

2021-2022	Cambridge Underwater Exploration Group (President)
2019	eSCAMPS conference organization