

Yann Ibouido

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LinkedIn: <http://www.linkedin.com/in/yannilboudo>

Github: <https://github.com/yilboudo>

Personal website: <https://yilboudo.github.io>

EDUCATION

Doctor of Philosophy (Ph.D) in Bioinformatics 01/2018 – 10/2023
University of Montreal, Montreal, QC, Canada

Master of Science (M.Sc.) in Bioinformatics 01/2015 – 03/2017
University of Montreal, Montreal, QC, Canada

Bachelor of Science (B.Sc.) in Bioengineering 09/2007 – 05/2011
Binghamton University, State University of New York, USA

CORE SKILLS

Research Skills: GWAS • ExWAS • Mendelian Randomization • eQTL • pQTL • Metabolomics • Genomics • Transcriptomics • Clustering • PCA • UMAP

Software: Python • R • REGENIE • PLINK • METAL • bcftools • Nextflow • RVTESTS • RAREMETALS • Slurm • Bash • AWK • Git • Linux • LaTeX • R/Markdown • Bioconductor • Mathematica • High Performance Computing • Microsoft suite

Human genetics datasets: AllofUS Research • TopMed • UKBioBank, SARDNiA • INTERVAL • OMG • CSSCD • GENMOD • dbGaP • CLSA

Research cloud computing: DNAnexus, Terra

Languages

- French (Native proficiency in reading and writing)
- English (Native proficiency in reading and writing)
- Italian (Full professional proficiency in reading and writing)
- Spanish (Elementary proficiency in reading and writing)

PROFESSIONAL EXPERIENCES & PROJECTS

Research associate 06/2022–01/2025
Lady Davis Institute, Montreal, QC, Canada

- Developed computational pipelines for genome-wide associations and mendelian randomization studies
- Supervises Ph.D. students and interns on various computational omics (proteomics, metabolomics, transcriptomics) projects
- Assist academic and industry collaborators to execute research studies
- Reviews manuscripts
- Hosts weekly lab meetings and monthly journal club
- Participate in the lab's recruitment efforts (interviews, CV reviews)
- Awarded computational storage grant from the Digital Research Alliance

of Canada Compute Canada estimated to be worth \$70,000

- Provide support for managing ~1000Tb of data

Research assistant in Bioinformatics 03/2017–01/2019

Montreal Heart Institute, Montreal, QC, Canada

Metabolomics projects

- Implemented a mendelian randomization analysis pipeline in *Python* to identify the causal role of metabolites in sickle cell disease patients
- Performed clustering analysis with *WGCNA*, developed a wrapper in *R* to facilitate the analysis
- Developed a *Python* script to efficiently parse the *XML* Human Metabolome Database (HMDB) in order to perform metabolite annotation
- Wrote projects results and methods in R Markdown

Genomics projects

- Developed a pipeline to perform genome-wide association (GWAS) studies for multiple phenotypes outputting tables, and figures
- Performed whole exome sequencing quality control and analysis with *GATK* and *VEP*
- Developed a *Python* script to integrate and harmonize results from GWAS, with those from gene expression (RNA-Seq), and genome editing (CRISPR)

LEADERSHIP & VOLUNTEERING

Variant Effect Seminar Series committee member 07/2022 - 10-2024

- Organized monthly virtual seminar series on variant effects
- Performed analytics analyses to optimize the number of people attending seminar
- Assisted with outreach efforts (Twitter, Instagram, podcast)

SELECTED PUBLICATIONS AND PREPRINTS

Y Ilboudo*, **N Brosseau***, K Sin Lo, H Belhaj, S Moutereau, K Marshall, M Reid, A Kutlar, A E Ashley-Koch, M J Telen, P Joly, F Galactéros, P Bartolucci, G Lettre. A replication study of novel fetal hemoglobin-associated genetic variants in sickle cell disease-only cohorts (2025) [Human Molecular Genetics](#).

Y Ilboudo, Y oshiji S, Lu T, Butler-Laporte G, Zhou S, Richards JB. Vitamin D, Cognition, and Alzheimer's Disease: Observational and Two-Sample Mendelian Randomization Studies (2024). [J Alzheimers Dis](#)

T Sasako, **Y Ilboudo**, K Liang, Y Chen, S Y oshiji, JB Richards
The influence of trinucleotide repeats in the androgen receptor gene on androgen-related traits and diseases. (2024). [J Clin Endocrinol Metab](#)