OSHIOMAH PHILIP OYAGESHIO

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SUMMARY

I am a Ph.D. candidate utilizing bioinformatics and data science to tackle complex questions in African Population Genomics, Epidemiology, and Immunology. I bring international fieldwork experience and thrive in collaborative research environments.

EDUCATION

Doctor of Philosophy in Population Biology
University of California Davis • US, California, Davis • expected Spring 2026 • 3.90

Master of Science in Ecology & Evolutionary Biology
University of California Los Angeles • US, California, Los Angeles • June 2020 • 3.73

Bachelor of Science in Biochemistry & Molecular Biology
University of Massachusetts Amherst • US, Massachusetts, Amherst • May 2018 • 3.49

EXPERIENCE

Genomics Data Scientist, (PhD Intern)
Regeneron Genetics Center, Tarrytown, New York **June 2024 - August 2024**
• Employed advanced bioinformatics tools and statistical models to analyze and interpret large-scale multiomic datasets.
• Deconvoluted proteomic data from the UK Biobank to cell-type specific fractions to enhancing understanding immune cell types in autoimmune diseases.
• Integrated epidemiological, immunological, and genomic data from autoimmune disorders to create custom phenotypes for Genome-Wide Association Studies (GWAS) meta-analyses
• Conducted comprehensive GWAS to explore the genetic underpinnings of autoimmune and inflammatory conditions
• Presented results bi-weekly to a cross-functional team of geneticists, immunologists, and medical doctors.

Graduate Research Associate
University of California Davis • https://oyageshio.wixsite.com/oshi-omics/projects • **September 2020 - Present**
• Built case-control assignment algorithm for tuberculosis status, utilizing clinical, behavioral, and self-report data from over 50 variables.
• Implemented Random Forest and Logistic Regression models to predict factors influencing active tuberculosis progression in a case-control dataset comprising over 1000 patients from rural South African clinics.
• Performing functional annotation of pathogenic variants for the Consortium on Asthma among African-ancestry Populations (CAAPA)
• Conducting single-cell RNA sequencing of peripheral blood mononuclear cells (PBMCs) from a Tuberculosis case-control cohort to identify novel variants implicated in tuberculosis progression.

Teaching Assistant: Computational Genomics
University of California, Davis **September 2023 - Present**
• Collaborate with Dr. Brenna Henn in facilitating an advanced human genetics course for a cohort of 25 Ph.D. students, emphasizing genetic data analysis hosted on a remote server.
• Contribute to the development of course materials to create engaging and informative lecture content and homework assignments.
• Conduct weekly coding sessions to provide personalized guidance to students as they work through assignments.

Visiting Scholar
Stellenbosch University, Cape Town, South Africa **September 2022 - April 2023**
• Executed comprehensive data collection encompassing blood, saliva, biometric, and demographic information during an extensive 2-month fieldwork expedition to the Northern Cape Province of South Africa.
• Developed a data pipeline for harmonizing disparate datasets, utilizing a combination of saliva barcodes and ID numbers to ensure data accuracy and integrity.

TECHNICAL SKILLS

R, Markdown, Python, Bash, UNIX, HPCC, Linux Shell Scripting

PUBLICATIONS

Oyageshio, O. P., Myrick, J. W., Saayman, J., van der Westhuizen, L., Al-Hindi, D. R., Reynolds, A. W., ... & Henn, B. M. (2024). Strong effect of demographic changes on Tuberculosis susceptibility in South Africa. *PLOS Global Public Health*, *4*(7), e0002643.

Smith, M. H., Myrick, J. W., **Oyageshio, O.P**., Uren, C., Saayman, J., Boolay, S., ... & Reynolds, A. W. (2023). Epidemiological correlates of overweight and obesity in the Northern Cape Province, South Africa. *PeerJ*, *11*, e14723.

ORAL PRESENTATIONS

- Therapeutic Area Genetics Meeting (2024) | Tarrytown, New York
- 14th International Congress of Human Genetics (2023) | Cape Town, South Africa
- Bay Area Population Genetics Meeting (2022) |Davis, California
- Annual Bay Area Tuberculosis Meeting (2022) |San Francisco, California