

Jesse Amoako Asimeng

Phone number: (+27) 695609494 (Mobile) | **Email address:** j.a.asimeng@gmail.com | **Website:**

<https://github.com/asimeng> |

Address: 125 Linden Street, Ravensmead, Parow, 7493, Cape Town, South Africa (Home)

● EDUCATION AND TRAINING

05/2023 – CURRENT Cape Town, South Africa

PHD. MOLECULAR BIOLOGY (BIOINFORMATICS) Stellenbosch University

Thesis Transcriptomic data mining to describe immunological events during tuberculosis treatment

03/2021 – 03/2023 Cape Town, South Africa

MSC. MOLECULAR BIOLOGY (BIOINFORMATICS) Stellenbosch University

Website www.sun.ac.za | **Final grade** Cum Laude (89/100) |

Thesis Pipeline and Tools for the Analysis of Multiplexed ELISA Data

09/2014 – 06/2018 Kumasi, Ghana

BSC. BIOLOGICAL SCIENCES Kwame Nkrumah University of Science and Technology

Relevant course work:

- Molecular Biology
- Gene expression, modification and genetic engineering
- Immunology
- Biophysics
- Microbiology

Website knust.edu.gh | **Final grade** Degree classification: Second Class Honours (Upper Division)

● WORK EXPERIENCE

02/2023 – CURRENT Stellenbosch, South Africa

WRITING CONSULTANT STELLENBOSCH UNIVERSITY WRITING LAB

- Guide and assist students in improving their writing skills

09/2018 – 06/2021 Kumasi, Ghana

RESEARCH ASSISTANT KUMASI CENTRE FOR COLLABORATIVE RESEARCH IN TROPICAL MEDICINE

- Utilised molecular techniques like DNA extraction, conventional and real-time PCR to identify microbes associated with meningococcal and influenza infections
- Contributed to developing standard operating procedures (SOPs) for the "Febrile Illness in Sub-Saharan Africa" study
- Reviewed scientific literature for my research group
- Collected data through administration of questionnaires

05/2017 – 06/2017 Koforidua, Ghana

SENIOR HIGH SCHOOL TEACHER INTERN KOFORIDUA SENIOR HIGH/TECHNICAL SCHOOL

- Taught Biology to a class of about 70 students
- Graded examinations
- Set up and instructed practical laboratory sessions

05/2016 – 06/2016 Koforidua, Ghana

MEDICAL LABORATORY TECHNICIAN INTERN NEWLANDS MEDICAL CENTRE

- Experience in phlebotomy
- Assisted in performing biochemistry tests (hormonal tests, kidney and liver function tests)
- Assisted in performing serological tests (Widal test, Blood grouping)
- Assisted in testing for malaria using microscopy

06/2013 – 09/2013 Accra, Ghana

MARKET RESEARCH INTERVIEWER TNS/RMS INTERNATIONAL

- Conducted market research through the administration of questionnaires

● LANGUAGE SKILLS

Mother tongue(s): **TWI (LOCAL GHANAIAI LANGUAGE)**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH LANGUAGE	C2	C2	C2	C2	C2
GERMAN	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● ADDITIONAL INFORMATION

HONOURS AND AWARDS

05/10/2023

Rector's Award for Excellent Achievement – Stellenbosch University Awarded for being the top masters student at the Faculty of Medicine and Health Sciences, Stellenbosch University

10/2021

Educational bursary – Stellenbosch University, School for Data Science and Computational Thinking
Bursary awarded to attend the "Introduction to Data Science and Computational Thinking" online course organised by the School for Data Science, Stellenbosch University from October - November 2021.

07/2021

DAAD In-Region Scholarship – German Academic Exchange Service For MSc studies in Molecular Biology (Bioinformatics) at Stellenbosch University from July 2021 to June 2023

04/2021

Travel Award – Stellenbosch University Awarded to attend the "BIO2022: Bioscience, Big Data & the 4th Industrial Revolution" conference held in Stellenbosch, South Africa from 24th - 27th April 2022.

SKILLS & EXPERIENCE

Computational and analytical skills

- Proficiency in the R programming language
- Developing web applications for interactive data analyses with R Shiny
- Developing computational environments (Singularity containers) for reproducible analyses
- Developing computational pipelines with the Nextflow workflow management system
- Experience with using the high performance computing (HPC) cluster
- Experience with using GIT, a version control system for collaborative work
- Bash scripting

Laboratory skills

- DNA extraction
- Gel electrophoresis
- Polymerase chain reaction (PCR)
- Culturing microorganisms (Bacteria)

Leadership skills

- Took a position as an organiser in the campus Christian association from April 2016 - March 2018 (where I organised members and coordinated meeting activities). Through this position, I developed leadership and managerial skills
- Volunteered in planting trees in and around the Kumasi metropolis, Ghana (2016 - 2018) with the aim of improving environmental sustainability
- Volunteered in clean-up campaigns in the Kumasi metropolis, Ghana (2016 - 2018) where I participated in tidying up various communities and sensitised community members on the importance of a clean environment

Other skills

- Proficiency in Microsoft office suite (Excel, Word, Powerpoint)
- Fast typing skills (45 words per minute - Mavis Beacon teaches typing)
- Good communication skills from my experience in interviewing study participants
- Data collection skills through the administration of questionnaire
- Administrative skills (recording meeting minutes, printing, scanning and photocopying)

CONFERENCES AND SEMINARS

28/08/2023 – Hamburg, Germany

Education and Research Oriented Training in Health Sciences Summer School Conference Oral presentation

Presentation title: LuminexR: a Tool for the Robust and Reproducible Analysis of Multiplexed ELISA Data

04/2022 – Stellenbosch, South Africa

BIO2022: Bioscience, Big Data & the 4th Industrial Revolution Conference Poster presentation

Presentation title: Pipeline and Tools for the Robust and Reproducible Analysis of Multiplexed ELISA Data

02/2022 – Stellenbosch University, South Africa

Division of Molecular Biology and Human Genetics Research Retreat Flash oral presentation

Presentation title: Pipeline and Tools for the Reproducible Analysis of Multiplexed ELISA Data

09/2021 – Stellenbosch University, South Africa

Annual Academic Day, Faculty of Medicine and Health Science ePoster presentation

Presentation title: Pipeline and Tools for the Analysis of Multiplexed ELISA Data

13/05/2022 – Stellenbosch University, South Africa

Division of Molecular Biology and Human Genetics Seminar Oral presentation on the progress of my MSc

Presentation title: Pipeline and Tools for the Analysis of Multiplexed ELISA Data

04/2022 – Stellenbosch, South Africa

South African Society for Bioinformatics & South African Genetics Society Students' Symposium Oral presentation

Presentation title: Pipeline and Tools for the Analysis of Multiplexed ELISA Data

TRAINING

02/08/2023 – 29/08/2023

Education and Research Oriented Training in Health Sciences Summer School, Hamburg University of Applied Sciences, Germany

Topics covered:

- Digitalization, Artificial Intelligence, and Global Health
- Statistics in Health Sciences
- Epidemiology and Study Design
- Interactive Teaching Methods
- Introduction to German Language and Culture

28/04/2022

SASBi Molecular Modelling Workshop, Stellenbosch, South Africa

Workshop topics:

- Introduction to Pymol utility
- Database interrogation
- Proteome modelling
- Analysis of mutations with structural annotations deposited in the COSMIC CGC 3D database
- Sars-CoV-2 proteome analysis

10/2021 – 11/2021

Introduction to Data Science and Computational Thinking, School for Data Science and Computational Thinking, Stellenbosch University

Completed modules:

- Data structures
- Data manipulation
- Summary statistics
- Data visualisation
- Hypothesis testing
- Linear modelling & introduction to machine learning

07/2021 – 09/2021

Centre for High Performance Computing (CHPC) winter school, South Africa (Online)

Completed modules:

- CHPC hardware architecture
- Linux command line
- Job scheduling – with the portable batch system scheduler (PBS)
- Advance job scripts
- Scaling and performance and fixing errors

08/2019 – 11/2019

Introduction to Bioinformatics Training, Human Hereditary and Health in Africa Bioinformatics Network (H3ABioNet)

Completed modules:

- Genomics
- Linux
- Sequence Alignment Theory and Application
- Multiple Sequence Alignment
- Molecular Evolution and Phylogenetic
- Databases and Resources

RELEVANT ONLINE COURSES

05/2020

Bacterial Genomes: From DNA to Protein Function using Bioinformatics, Wellcome Genome Campus Advanced Courses and Conferences

Completed modules:

- Bioinformatics tool, DNA and Protein Sequences
- Retrieving DNA and Protein Sequences from repositories
- Databases for Protein Annotation
- Inferring function from sequence

03/2020

Bacterial Genomes: Disease Outbreaks and Antimicrobial resistance, Wellcome Genome Campus Advanced Courses and Conferences

Completed Modules:

- Genome Sequencing Technology
- Mechanisms of Transmission of Resistance
- Genomic Epidemiology – Tracking the Spread of Bacterial Pathogens
- Antimicrobial Resistance

NETWORKS AND MEMBERSHIPS

09/2021 – CURRENT South Africa

South African Society for Bioinformatics Student membership