

Samuel Boampong Nkrumah

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Education & Work Experience

Franko Trading Enterprise - Ghana, Financial Auditor

October 2019 – January 2020

University of Missouri – Columbia Biochemistry PhD Program

August 2018 – January 2019

Fisk University, B.Sc. Biology

August 2014 – May 2018

Opoku Ware High School, WASSCE Cert. in General Science

August 2010 – May 2013

Software, Skills & Coursework

Github

Python, R, Machine Learning

Coursera Bioinformatics III (Comparing Genes, Proteins and Genomes)

Awards & Honors

UCLA-HBCU Bruins in Genomics Summer Research Fellowship

June – August 2018

MIT Biology Gould Summer Research Fellowship

June – August 2017

Erastus Milo Cravath Presidential Scholarship, Fisk University

August 2014 – May 2018

Dean's List, Fisk University

August 2015

Overall Best Student in Social Studies, Opoku Ware High School

2012

Research Experience

Summer Research Intern

June – August 2018

UCLA Bruins in Genomics Summer Research Program

Mentor: Dr. Stan Nelson

- Developed an efficient computational method for fingerprinting DNA and RNA patient samples.

Summer Research Intern

June – August 2017

MIT Biology Summer Research Program

Mentor: Dr. Tom Schwartz

- Tested the utility of a nanobody suite for crystallizing a substructure of the Nuclear Pore Complex.

Undergraduate Researcher

June 2015 – August 2017

Meharry Medical College

Mentor: Dr. Jamaine Davis

- Used computational tools to compare and analyze BRCT domain protein sequences.
- Wrote Java string algorithms for processing and analyzing DNA and protein sequences.
- Tested BRCT domain protein-protein interactions and their implications for DNA damage repair.
- Expressed and purified BRCT domain proteins.

Undergraduate Researcher

Fisk University

August 2014 – April 2015

Mentor: Dr. Brian Nelms

- Studied the role of the FKH-8 transcription factor in *C.elegans* neurodegeneration.

Other Relevant Experiences & Projects

TCGA-Breast-Cancer-Classifier

August 2021

- Developed k-Nearest Neighbor and Elastic Net models for classifying TCGA Breast Cancer samples.

Participant

June 2021

African Society of Bioinformatics and Computational Biology (ASBCB) Omics Codeathon

- Explored a machine learning model for classifying breast cancer subtypes using TCGA multi-omic data.

Academic Work

[Protein Folding from the Perspective of Chaperone Action](#) (2019) arXiv.

November 2019

Presentations

“Verifying Identity of DNA and RNA specimen through SNP analysis”

Institute for Quant. Biosciences, UCLA: Summer Program Showcase

August 2018

“Characterization of Nucleoporin Nanobodies”

ABRCMS Conference

October 2017

Department of Biology, MIT: Summer Program Showcase

August 2017

Teaching

Peer Tutor, Chemistry and Math, Fisk University.

August 2014 – August 2017

Teaching Assistant, Intermediate Algebra, Fisk University.

August 2015

Leadership & Service

Volunteer, [MLK Day of Service](#), Fisk University.

2017

Campus Representative, [Clinton Global Initiative University](#), Fisk University.

2016

Volunteer, [Clinton Global Initiative University Day of Action](#)

2016

Commitment Maker, MiCode, [Clinton Global Initiative University](#)

2016

Student Leader, First-Love Bible Studies Group, Fisk University

2014 – 2016

Extracurricular Activities

Reading and Writing Poetry, Reading Aeon Articles and Essays, Listening to music and singing