


# Aina Adekunle

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 <https://linktrest.io/aina>

## Summary

Aina Adekunle applies computational techniques including those based on information theory, AI, and principles of physics to study and design proteins for the development of therapeutics.

## EXPERIENCE

3 years of experience in the biotechnology industry.

6 years of experience in the study of proteins and their application for therapy.

6 peer-reviewed journal and conference publications.

1 US provisional patent.

\$200,000 secured in graduate research funding.

## SKILLS

Teamwork, Communication, Active Listening, Teaching, Leadership

## TECHNICAL

Data Analysis, Data Science, Machine Learning, Deep Learning, Biophysics, Bioinformatics, Computational Biology, Protein Design, Protein Engineering, Molecular Modelling, Molecular Simulation, Scientific Computing, Cloud Computing

## TOOLS

Rosetta, AlphaFold, Python, Pandas, Scikit-learn, TensorFlow, Jupyter Lab, Google Colab, Git, Linux, Gromacs, OpenMM

## INDUSTRY

Pharmaceutical Biotechnology

## EDUCATION

PhD (candidate) in Biophysics

MSc in Physics

BSc in Engineering Physics

AS in Physics, Chemistry & Maths

## CONTACT

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## Experience

### **Research Consultant - Immunogen Design**

ProMIS™ Neurosciences, Inc.

Jan 2021 - Present (1 year 6 months +)

- Designing immunogen for eliciting antibodies selective for tau oligomers in Alzheimer's disease.



### **Doctoral Research Scientist - Physics & Biophysics**

The University of British Columbia

Sep 2018 - Present (3 years 10 months +)

- Conducting protein biophysics research.
- Applying computational techniques including machine learning and principles of physics to design therapeutic proteins.



### **Teaching Assistant - Data Science**

The University of British Columbia

Sep 2019 - Present (2 years 10 months +)

Taught 4 graduate courses at UBC Master of Data Science Professional Program.

- DSCI 511 - Programming for Data Science
- DSCI 571 - Supervised Learning
- DSCI 563 - Unsupervised Learning
- DSCI 573 - Feature and Model Selection



### **Teaching Assistant - Computer Science**

The University of British Columbia

May 2022 - Present (2 months +)



### **Teaching Assistant - Physics**

The University of British Columbia

Sep 2018 - Present (3 years 10 months +)



### **Founder**

Data Insight

May 2019 - Present (3 years 2 months +)

- Created Data Insight - an online platform for training beginners to become data scientists.



### **Director - Data Scientist Program**

Data Insight

May 2019 - Present (3 years 2 months +)

- Directing and managing the Data Science Program
- Facilitating data science training for economically disadvantaged individuals around the world.
- More than 500 beneficiaries from over 50 countries have completed or are completing their training.



### **Founder**

Canada Grad School

May 2021 - Present (1 year 2 months +)

- Created Canada Grad School - a free consulting service for Admissions and Scholarships in Canada.



## **Consultant - Admissions & Scholarships**

Canada Grad School

May 2021 - Present (1 year 2 months +)

- Advised and coached 100+ students on how to get admissions and scholarships in canadian universities.



## **Assistant Lecturer - Physics**

University of Lagos

Oct 2015 - Apr 2022 (6 years 7 months)



## **Associate Scientist - Protein Design & Biophysics**

ProMIS™ Neurosciences, Inc.

Sep 2018 - Dec 2020 (2 years 4 months)

- Secured \$45,000 Mitacs funding for COVID-19 research.
- 1 US provisional patent for Assays and Compositions for Serological Detection of Sars-Cov-2.
- Predicted epitopes in alpha-synuclein and tau proteins.
- Designed peptide immunogens to raise therapeutic antibodies against toxic species in Alzheimer's and Parkinson's diseases.



## **Research Assistant - Protein Physics**

Memorial University of Newfoundland

Sep 2016 - Aug 2018 (2 years)

- Published 2 peer-reviewed journal articles.

## **Education**



### **The University of British Columbia**

Doctor of Philosophy - PhD, Physics & Biophysics

2018 - 2022

Research Area: Protein Design & Biophysics

Research Method: Computational

Thesis: Applications of computational techniques to protein ensembles in neurodegenerative diseases



### **Memorial University of Newfoundland**

Master of Science - MSc, Physics

2016 - 2018

Research Area: Protein Science

Research Method: Computational

Thesis: Computational study of the biophysics of protein conformational switching



### **University of Lagos**

Bachelor of Science - BSc, (Applied) Engineering Physics

2009 - 2014



**Ahmadu Bello University**

Associate of Science - AS, Physics, Chemistry & Mathematics

2005 - 2007

## **Skills**

Protein Design • Rosetta • Molecular Simulation • Research • Biophysics • Data Science • Data Analysis • Physics • Programming • Mathematics