

FAVOUR OGADINMA IZUAGBA

Research Assistant | Chemsolvers Research and Computational Laboratories | Imo State, Nigeria

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EDUCATION

Federal University of Technology Owerri, (FUTO), Nigeria.

2018 – 08 Oct 2024

Bachelor of Technology (B.Tech.) in Chemistry

- **Grade:** First Class Honors (CGPA: 4.57/5.00) [\[View\]](#)
- **Rank:** top 1% of the class - Second Best Graduating Student in Class
- **Thesis advisor:** Prof. Mrs. Ijeoma Akunna Duru
- **Thesis Title:** Virtual Screening Methods for Identification of Small Molecule Inhibitors from Curcuma Longa against Hyaluronidase and NADPH Oxidase.
- **Modules:** Organic chemistry I, Organic chemistry II, Environmental chemistry, pharmaceutical chemistry, Heterocyclic chemistry, Synthetic chemistry, Chemistry of natural products, Chemistry of macromolecules Polymer Chemistry, Physical Chemistry, Co-ordination Chemistry and Applied spectroscopy.

HONORS /AWARDS

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|--|------|
| • Graduated with First-Class Honors in Chemistry | 2024 |
| • Second Best Graduating Student in Chemistry | 2024 |
| • Special Recognition by Vice-Chancellor Prof. Nnenna Otti | 2024 |
| • Recipient of the Sastugrafe Fellowship Award as a First-Class Student and Vice-President | 2024 |

WORK EXPERIENCE

Research intern

April – Aug 2023

Chemsolvers Research and Computational Laboratories, Owerri, Imo State [\[View\]](#)

- I conducted bioactivity searches to identify potential lead compounds by analyzing databases for relevant pharmacological profiles.
- I performed hit-to-lead optimization, refining chemical structures to enhance potency, selectivity, and drug-like properties.
- I analyzed structure-activity relationships (SAR) to determine how molecular modifications impact biological activity, guiding rational drug design.
- I executed molecular docking studies to assess the binding interactions of test compounds with disease-associated proteins, evaluating their inhibitory potential.
- I predicted pharmacokinetics and pharmacodynamics (PK/PD) properties, including absorption, distribution, metabolism, excretion, and toxicity (ADMET), to assess drug-likeness and safety.

TEACHING EXPERIENCE

Educational Group Leader & Peer Tutor, Self-initiated, FUTO

Aug 2022 - April 2024

- I founded and led a study group, simplifying complex chemistry concepts and tutoring Year 1 students to improve academic performance.

Online Tutor for International Students, freelancing, Remote/Online

Sept 2024 - Present

- I provided virtual tutoring to 5 international students (UK and Canada) in high-school science & mathematics
- I assessed student progress and provided regular feedback to support continuous improvement.
- I achieved significant improvements in students' test scores and overall academic performance.

VOLUNTEERING

Volunteer Administrative Assistant

Sept 2024 – April 2025

Department of Chemistry, Futo

- I collaborated effectively with team members, ensuring inclusive participation and open communication where all ideas are heard, respected, and considered in decision-making.
- I demonstrated strong interpersonal and mediation skills by balancing diverse viewpoints and managing group dynamics to facilitate smooth and efficient project execution.
- I provided reliable support in the day-to-day operations of the department, including document filing, record-keeping, academic assistance, and logistics coordination.

RESEARCH EXPERIENCE & INTERESTS

Medicinal chemistry, pharmaceutical chemistry, Computational chemistry, Polymer Chemistry and cheminformatics.

Chemsolvers Research and Computational Laboratories, Owerri, Imo State

- I assisted in designing experiments and analyzing data related to enzyme inhibition and drug bioavailability.
- I collaborated with senior researchers to prepare technical reports, research papers, and presentations for both internal review and academic dissemination.
- I contributed to the development of a compound library by sourcing and optimizing novel phytochemical and synthetic analogues for virtual screening campaigns.
- I participated in team discussions to interpret data trends and refine experimental protocols, enhancing the reliability and accuracy of study results.
- I lead virtual screening studies to identify potential drug candidates for the inhibition of target proteins.
- I conducted pharmacophore modeling to design molecular features essential for binding to target proteins, assisting in the discovery of novel lead compounds.
- I conducted QSAR modeling using Schrodinger Suite Maestro to develop predictive models for drug bioactivity, optimizing lead compounds in early-stage drug development.
- I integrated computational methods with experimental data, collaborating with multidisciplinary teams in drug design and screening projects.

PUBLICATIONS

- Computational Structure-Based Identification of Silymarin as a Promising Flavonoid Inhibitor of the Diphtheria Toxin Catalytic Domain: under review in a Scopus-indexed journal.
- Flavonoid Scaffolds as Promising Antiviral Leads Against Varicella Zoster Virus: A Structure-Guided Virtual Screening Study: under review.

TRAININGS & CONFERENCES [View]

- Training on “Advanced Computer-Aided Drug Design” 11- 20 Jul 2025
Cheminformatic Academy.
- Training on “2nd Data Science & AI Summer School” 27- 28 Jun 2025
New Life Research Foundation (NELIREF) LTD/GTE
- “Chemical and Theoretical Data Analysis using Machine Learning: Methods & Applications” Jun 2025
Chemical Society of Nigeria [CSN] Imo Chapter
- “Artificial intelligence in Sustainable Drug Discovery” 19 – 20 May 2025
International Master of Science in Sustainable Drug Discovery (S-DISCO)
- “Translational chemistry: Synthesis, innovation, and Technology Development” 11 Mar 2025
Africa Centre of Excellence in Future Energies and Electrochemical Systems (ACE-FUELS)

LEADERSHIP EXPERIENCE

- **President, Universitysquare Hostel, Futo Road, Eziobodo, Owerri, Imo State** 2022 – 2024
I mentored and guided 40 undergraduate students on academic, personal, and administrative matters.
I mediated conflict and applied problem-solving strategies to maintain a harmonious environment.
- **Vice-President, The Salvation Army Undergraduate, Graduate Fellowship** 2023 – 2024
I led and coordinated fellowship activities, organizing spiritual, academic, and community-building events to promote members’ growth and unity
- **Class Representative, Christ the King Secondary School, Aba, Abia State** 2014 - 2017
I represented the class by liaising with teachers, coordinating activities, and facilitating effective communication and academic support

PERSONAL SKILLS

- Excellent skills in speaking, writing, research, and analysis. Others include interpersonal communication/public speaking, teaching, time management, multitasking, and leadership skills.

ICT SKILLS

- Coding-Python, machine learning, Schrodinger, Discovery Studio, Pyrx, Microsoft Excel, MS Office.

Language(s) Spoken

- Fluent in English: My home country’s official language and medium of instruction (view the proof [here](#))

INTERESTS/HOBBIES

- Research, teaching, reading, attending conferences and workshops, and academic mentorship.