

Tanatswa Shaun Mujumi

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Summary

NASA-recognized STEM researcher with experience in regulatory affairs, advanced cell culture, nanomaterials synthesis and optimization, bioacoustics data analysis, and molecular toxicology.

Skills

- **Technical Skills:** UV-Vis Spectroscopy, HPLC, Powder XRD, Confocal Microscopy, qPCR, Western Blotting, ELISA, MIC Assay, Gel Electrophoresis, Molecular Docking, Advanced Excel, Python, R
- **Transferable Skills:** Leadership, Team Collaboration, Technical Writing, Scientific Communication, Critical Thinking, Quantitative Problem Solving, Research Design, Project Management

Education

Grambling State University Grambling, LA
Bachelor of Science in **Forensic Chemistry and Biology** Expected Graduation: December 2027
Cumulative GPA: **3.97**
Relevant Courses: Forensic Internship, Physical Methods in Forensic Chem, Criminal Investigation
Academic Achievements: ACS ENFL ChemIDP™ Travel Award & Student Award Finalist

Experience

Harding University College of Pharmacy (HUCOP) Searcy, AR
SCRIPT Intern June 2026 – August 2026

- Investigated the **antimicrobial activity** of New Zealand **Manuka honeys** of UMF 50-1200 against methicillin-susceptible and -resistant *Staphylococcus aureus* using agar diffusion and MIC assays.
- **Observed** multiple **Arkansas State Board of Pharmacy hearings**, including an Invega Sustenna medication-administration error, **examining regulatory oversight** and pharmacist accountability.

Chemical Synthesis Lab Grambling, LA
Research Assistant August 2025 – May 2026

- Synthesized **ZnO nanoparticles** via the **sol-gel method** (92% yield) to investigate the **photocatalytic degradation** of the environmental toxin, **methylene blue**, confirming a 95% **wurtzite structure**.

Bioacoustics Research Grambling, LA
Research Assistant August 2024 – February 2026

- Applied **Raven Pro 1.6.5** software for large-scale **acoustic data analysis**, testing hypotheses **linking habitats** and the **vocalizations** of the **white-breasted wood wren** species.

National Aeronautics and Space Administration (NASA) Washington, DC
Research Assistant August 2024 - September 2025

- **Optimized InP and ZnS nanocrystals**, achieving a **2.7% efficiency gain** in **solar cell energy**.

Molecular Toxicology Lab Grambling, LA
Research Assistant January 2024 - December 2024

- Evaluated **cytotoxic effects** of **pentachlorophenol** wood preservative on **TIB-73** mouse hepatocytes.

Leadership

Society for Financial Education and Professional Development (SFEPPD) Alexandria, VA
Student Ambassador & Peer Financial Coach May 2024 - Present

- Execute **financial literacy seminars** for 150 peers each semester on **budgeting/credit management**.
- **Guide** college students in **personal finance** via scheduled three-hour weekly **virtual sessions**.
- Finished **2nd** in **Stock Market Challenge** with a **5-stock portfolio** (FSM, GLW, SNDK, AG, SII).
- **Attained third** position in the Fall 26 **Financial Literacy Bowl Quiz Competition**.

Presentations

Mujumi, T. S., & Yeboah, K. (2026, July). “**Can Honey Outsmart Antibiotic Resistance? Insights from Manuka Honey as an Antimicrobial Therapeutic**.” Oral & Poster, HUCOP, Searcy, AR.

Mujumi, T. S., & Pokhrel, J. (2026, April). “**Metal-doped zinc oxide photocatalysts for methylene blue degradation**.” Poster, ULS Academic Summit, Southeastern Louisiana University in Hammond.

Mujumi, T. S., & Yang, H. (2026, March). “**Quantum dot wavelength conversion materials for enhanced silicon solar cell efficiency**.” Oral & Poster, American Chemical Society’s Energy & Fuel Division (ENFL), Atlanta, GA.

Certifications

SFEPPD Mind Over Money Skills (Sept. 2024), IBM Data & AI (Nov. 2024), HBCU First Nordstrom Student Challenge-1st Place (Apr. 2025), LBRN Bioinformatics (Mar. 2026), AHA Basic Life Support Provider (June 2026)