
KAMDEN PERKINS

(337) 476-0208 • kep025@email.latech.edu • Ruston, LA

EDUCATION

LOUISIANA TECH UNIVERSITY– *Ruston, Louisiana* 2021-2026
B.S. in Chemical Engineering, B.S. in Chemistry, BID in Interdisciplinary Studies, GPA-3.555/4.0
& Health/Medical Physics Undergraduate Certificate

RESEARCH EXPERIENCE

LOUISIANA TECH UNIVERSITY-RUSTON, LA FEB. 2024-PRESENT
BIOMASS TEAM RESEARCH ASSISTANT STARTING NOV. 2024

- Assisting both computationally and in the lab to recover potential products from waste material using engineering and chemistry experience and knowledge

CENTER FOR APPLIED PHYSICS SCIENCE (CAPS) RESEARCH ASSISTANT FEB. 2024-PRESENT

- Participating in the Measurement of a Lepton-Lepton Electroweak Reaction (MOLLER) project with LTU's Physics department under Dr. Beminiwatha
- Running particle collision simulations using Geant4, FLUKA on Linux that's to be tested at Thomas Jefferson National Accelerator Facility (JLab)
- Determining the expected background "noise" with simulations to increase detector accuracy, and comparing these results with different programs, interactions, and collision types
- Manufacturing and designing prototype detectors using simulation results
- Comparing past and present simulation data in support of the JLab equipment update

WORK EXPERIENCE

NAVAL NUCLEAR LABORATORY-PITTSBURG, PA STARTING JUNE 2025
CHEMICAL ENGINEERING/CHEMISTRY INTERN

- Joining the Navy's nuclear reactor designer to perform hydraulic and chemical calculations

BWX TECHNOLOGIES, INC.-LYNCHBURG, VA JUNE-AUG. 2024
ENGINEERING INTERN

- Joined a team at the Navy's sole manufacturer for nuclear reactors in the Uranium Processing and Research Reactor (UPRR) area, where reactors for MIT, ORNL, INL, and more are made
- Used self-taught on the job CAD knowledge to assist the UPRR area in daily operations with engineering, operations or self-appointed process and part design work
- Instilled 3D printing in the design process to reduce the cost of prototyping and design mishaps
- Supported streamlining of the HFIR reactor bore machining step by creating reactor drawings so the process could be rerouted to another department, increasing the throughput of products
- Supported HALEU reactor conversion with a redesign of swager machine components
- Designed and machined machine guarding with operator input in response to a safety event
- Promoted reactor quality with designed fixtures that protected the product in the cleaning stage

LOUISIANA TECH UNIVERSITY-RUSTON, LA SEPT. 2022-PRESENT
TUTOR SEPT. 2024-PRESENT

- Tutored thermodynamics I/II, circuits, statics, fluids, and organic, general, & physical chemistry

COLLEGE OF ENGINEERING AND SCIENCE AMBASSADOR FEB. 2024-PRESENT

- Representing Louisiana Tech University's College of Engineering and Science
- Providing prospective students with a guided informational tour about the college and attending recruitment events with other ambassadors to display the energy and benefits of the college
- Point of contact between COES clubs and staff to ensure club presence at recruitment events
- Visiting local high schools to educate students on greater educational opportunities

CHEMISTRY LAB TEACHER'S ASSISTANT DEC. 2023-MAY 2024

References available upon request

[Kamden Perkins | LinkedIn](#)

KAMDEN PERKINS

(337) 476-0208 • kep025@email.latech.edu • Ruston, LA

- General Chemistry, Organic Chemistry, and Physical Chemistry TA
- Prepared lab equipment and chemicals with a team in an organized and timely manner
- Effectively directed and routinely supervised students to ensure safe laboratory procedures are followed to prevent injury and promote analytical accuracy
- Created a lab that will be implemented into the Physical chemistry lab roster

CITGO – LAKE CHARLES, LA

AUG. 2023-DEC. 2023

PROCESS ENGINEERING CO-OP

- Worked in the fluid catalytic cracking (FCC) area at the 6th largest refinery in the USA
- Performed hydraulic and chemical calculations to determine capable conditions for chemical cleansings and the amount of environmentally hazardous substances released in incidents
- Participated in turnaround execution, such as entering equipment for inspection, supervising during equipment and catalyst installation, and signing off on equipment installation procedures
- Redesigned a product cooling system to promote long-term heat transfer and reduce corrosion; hydraulic and economic calculations were done to propose system piping and justify this project
- Assigned to analyze the performance of \$1M worth of additive that promotes profitable hydrocarbons, manage additive loading and logistics, and report performance to the supervisor, business optimization group, and the additive manufacturer

WESTLAKE CORPORATION – LAKE CHARLES, LA

JUNE 2023-AUG. 2023

PRODUCTION ENGINEERING INTERN

- Employed at the 2nd largest chlorine producer in the USA, and worked with diaphragm cells
- Calculated physical properties of the chlorine gas cell line production and validated the explosive regions of the mixtures to develop safe operating envelope guidelines
- Evaluated abandoned titanium pumps in the chlorine circuit area to be repurposed for brine acidification and made recommendations for the new service based on hydraulic computations
- Assessed chlorine circuit rail transportation system to determine approach to end of life, provided a recommendation on the repair or replacement, and proposed capital plan for address
- Conducted a financial analysis of the chemical components present in the solids dissolving system's waste streams from the brine clarification effluent that could be captured and utilized

BUSCEME CATTLE CO. – DEQUINCY, LA

JUNE 2018-AUG. 2021

RANCH HAND

- Directed to tend and care for livestock, upkeep facilities, mend fences, and clear tree lines; constructed multiple structures throughout employment, such as barns and corrals
- Maintained lubrication and condition of mechanical equipment and their attachments

ACADEMIC PROJECTS

- ASCE Steel Bridge 2025
 - TIG welding for the civil engineering steel bridge design competition
- Shell Eco-car (Hydrogen Cell) Senior Design Project 2024-25
 - Fabricated a hydrogen fuel cell with senior design team for the Shell Eco-car competition
- Truss Design Project 2023
 - Developed an originally designed truss structure under specific design parameters along with a theoretical structural analysis to determine maximum load-capacity which was validated with testing
- Arduino Technology Lifting Apparatus System (A.T.L.A.S.) 2022
 - Created with a team that designed, fabricated, and presented the project at the LA Tech Freshman Engineering Expo with over 600 participants.

References available upon request

[Kamden Perkins | LinkedIn](#)

KAMDEN PERKINS

(337) 476-0208 • kep025@email.latech.edu • Ruston, LA

- Assists in the lifting of objects, to a maximum of 500lbs, through the use of linear actuators attached to supporting leg braces that the user will wear while remaining mobile.
- Dynamic Temperature Control System 2022
-Linear Actuator Design Project 2022
-3D-Designed Centrifugal Pump 2021

VOLUNTEER WORK

- (See LinkedIn for all that I have volunteered with)
- Lynam LA Tech Lab
-Lynchburg Daily Bread
-LA Tech Chemistry Lab TA
-Lake Charles Chem Expo Lake Charles, September 2023
-Hurricane Laura & Delta Relief Lake Charles, August-October 2020
-Puerto Rico Hurricane Relief Mission Trip Puerto Rico, Summer 2018

TECHNICAL SKILLS

C, C++, VBA, Python	Windows, Linux	Pi ProcessBook	Aspen	SAP
MS Office	Matlab	Autodesk CFD	COMSOL	SolidWorks/Fusion 360
Aveva Pro/II	AutoCAD Plant 3D	Geant4, FLUKA	AFT Fathom	Mathcad

CERTIFICATIONS / AWARDS

- DOE "L" security clearance 2024
-Six Sigma Lean Yellow Belt 2023
-PADI Open Water Diver 2023
-CITGO Chemical Engineering Scholarship 2023
- Robert E. Cannon Endowed Scholarship in Engineering 2023
-Shoot the Moon Award 2022
- One of seven awards available at the LA Tech Freshman Engineering Expo, issued by the Dean of the College of Engineering at Louisiana Tech University for the A.T.L.A.S. project
- Member of Louisiana Tech's Honors College 2021
-Outstanding Student Scholarship (ACT 29-30) 2021
-Westlake Scholarship 2021
-Frequent Deans list appearances 2021-24

ORGANIZATIONS

- American Society of Mechanical Engineers -American Chemical Society -LA Tech Eco-Car
Recreations Officer, Sophomore -American Institute of Chemical Eng. -LA Tech Swim Club
Treasurer Officer, Junior -ASCE