

Ashwin Sakthivel

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Education

University

Bachelor of Science, Biomedical Engineering

Bachelor of Science in Computer Science, Computer Science

August 2027- Ongoing

Work Experience

Organic Chemistry Lab Intern, R&S Chemicals –NCRC Kannapolis, North Carolina

- Assisted in the synthesis of drug APIs in an organic chemistry lab, contributing to the development of pharmaceutical compounds under the guidance of Dr. Srisailas Muthialu.
- Contributed to cancer research by working on chemical compounds designed to aid in therapeutic advancements.
- Operated and maintained mass spectrometry equipment for precise analysis of synthesized compounds, ensuring accuracy and quality control.

EMT-B Field Intern, EMS –Cabarrus County, North Carolina EMS

- Provided emergency medical care during night shifts for Cabarrus County EMS, treating a wide range of patients in critical situations.
- Responded to and treated cardiac arrest, car trauma patients, and patients exhibiting aggressive behavior, ensuring swift and effective medical intervention.
- Delivered compassionate care to elderly patients with health concerns such as hypoglycemia and hypertension, maintaining patient safety and stability in high-stress environments.

Extracurriculars

Member- University of South Carolina Powerlifting Team

August 2024 –Ongoing

- Competitive USAPL powerlifter, actively training 5 days a week in the squat, bench press, and deadlift, demonstrating dedication to strength and performance improvement.
- Competed in multiple local and state-level competitions, consistently pushing physical abilities and setting personal records

Projects

SMILES To IUPAC Converter

- Developed a Python program to convert the company's chemical catalog from IUPAC to SMILES nomenclature, streamlining chemical data processing.
- Integrated PubChem API and OpenBabel library as a backup, automating the conversion of chemical nomenclature and updating Excel data sheets with precise SMILES codes.

Skills

Programming Languages: Python, Java

Organic Chemistry: Mass Spectrometry, Chemical Nomenclature