

Seth Chester

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Chemistry Student | Drug discovery research experience in receptor-ligand binding assay development and IC₅₀ determination; skilled in organic synthesis and chemical instrumentation.

Education: **Bachelor of Science, Chemistry** May 2028
Rose-Hulman Institute of Technology, Terre Haute, IN **GPA: 3.89**

Relevant Courses Completed: Analytical Chemistry, Organic Chemistry, Computer Applications, Many-Particle Physics, Engineering at the Nanoscale

Skills: **Lab Experience:** Thin-layer chromatograph (TLC), recrystallization, potentiometric and conductometric titrations, qualitative analysis, microwave irradiation, spectroscopy, distillation
Instrumentation: HPLC, GC, UV-Vis spectrophotometer, NMR, IR spectrophotometer
Software: SolidWorks, Python, GitHub, Logger Pro, Excel
Language: Elementary German (4 years of high school study)

Research

Experience: **Estrogen Receptor Fluorescence Polarization Assay** Feb 2026 – May 2026
Research Assistant – Dr. Ross Weatherman, Weatherman Lab

- Developed a robust fluorescence polarization ligand-binding assay to quantify estrogen receptor engagement by antiestrogens and estrogen agonists
- Generated IC₅₀ dose-response curves for a novel compound and known reference ligands to estimate the binding affinity of the new candidate

Sustainable Binary Solvent for Racing Fuel Nov 2025 – Feb 2026
Research Assistant – Dr. Rebecca DeVasher, Introduction to Chemistry Research

- Quantified the ratio of isooctane and ethanol to provide the most sustainable and energy efficient mixture
- Determined the polarity of varying ratios of isooctane and ethanol using the Betaine-30 (Reichardt's dye) polarity index

Manganese Nanoparticle Synthesis Dec 2024 – May 2025
Research Assistant – Dr. Alexander Kamasah, Independent Research Lab

- Improved yield of microwave nanoparticle synthesis procedures
- Synthesized nanoparticles using a CEM's MARS 6 Synthesis microwave
- Analyzed samples with a UV-Vis Spectrophotometer

Project

Experience: **Spatio**, Alexandria, IN June 2026 – Present
Founder – 3D Scanning and Virtual Tour Services

- Founded a 3D scanning and virtual tour business serving real estate agents and local businesses
- Designed and launched the company website (spatioscans.com) to market services and generate client leads
- Networked with local business owners and marketed services to build an initial client base

Dyer Real Estate Website, Alexandria, IN June 2026 – Aug 2026
Freelance Web Developer – Dyer Real Estate

- Designed and built a website (dyerre.net) to display property listings for a local real estate firm
- Communicated with the client to gather requirements and revise the design

Recyclable Instrument Feb 2025 – May 2025
Class Project – Introduction to Engineering Design

- Designed and machined a xylophone alongside a team of 3 peers using Teams, Excel, Word, and SolidWorks
- Communicated through PowerPoint presentations and Word documents to stakeholders about budget and the design process

Work

Experience: **Maranatha Coffee Co., Frankton, IN** June 2026 – Aug 2026
Barista General

- Prepared espresso and specialty beverages in a fast-paced service environment
- Maintained equipment and workspace cleanliness to ensure consistent product quality

M & W Gardens at Ousley's, Alexandria, IN June 2023 & June 2024
Garden Center Assistant

- Answered questions regarding plants and watering patterns to inform customers of proper care

Alexandria Jr./Sr. High School, Alexandria, IN Aug 2022 – May 2024
Library Assistant

- Labeled and inventoried books to organize workflow and provide accessible products

Leadership: **InterVarsity Christian Fellowship, Rose-Hulman Institute of Technology**
Small Group Leader Mar 2025 – Apr 2026

- Planned and led Bible discussions of 6 – 14 students
- Met one-on-one with students to discuss theology, habits, and career paths

Worship Leader Mar 2026 – Present

- Participated in a worship band as a pianist, guitarist, vocalist, and drummer
- Organized community worship using Tabernacle™ and Microsoft Outlook
- Advised leadership in community vision and organizational matters

Society of Physics Students, Rose-Hulman Institute of Technology
Secretary Mar 2025 – Mar 2026

- Facilitated executive meetings through Microsoft Word notes and Microsoft PowerPoint presentations
- Sent department-wide emails for events using Microsoft Outlook

Outreach Coordinator Mar 2026 – Present

- Contacted Rose-Hulman alumni to speak at department-wide events
- Coordinated educational internship panels for students

Honors: **Lilly Endowment Scholar** 2024- 2028

- Full tuition scholarship