

Employment

Senior Chemistry Technician	Cook Nuclear Station / AEP	2016-Present
------------------------------------	-----------------------------------	---------------------

- Performed 24/7 shift coverage as the Lead Technician responsible for monitoring and maintaining the chemistry of Cook's two units that supply energy to power more than 1.5 million homes.
- Achieved excellent understanding of complex plant systems, their interaction, and their potential effect on overall plant chemistry.
- Developed a frontend web paging alarm system to alert chemistry technicians of off-normal legally required samples.

Chemistry Technician	Fort Calhoun Nuclear Station / OPPD	2014-2016
-----------------------------	--	------------------

- Monitored system plant chemistry, and plant effluents in accordance with technical specifications, state and federal regulations.
- Designed a chemical analysis that verified a cheaper supplier of sample bottles would not compromise established testing protocols via chemical contamination, which in turn saved the department \$17,000 a year by switching suppliers.

Chemical Analyst	Corbion	2012-2014
-------------------------	----------------	------------------

- Verified chemical products met internal and external QC/QA standards.
- Redesigned a chemical analysis that had a 50% QA passing rate and increased it to nearly 100%. Saving about four man hours per analysis performed.

Programming Projects

- **Tetris** - Fully responsive javascript implementation of the classic falling block game. Touch controls are implemented for mobile users. The game mechanics were recreated from existing games, and the rules found on tetris wikis. - Javascript, HTML, CSS
- **Alarm Paging System** - Frontend web app that allows chemistry technicians to create alarms that will automatically send sample reminders to their personal pager. A separate plant paging website was analyzed with chrome development tools to reverse engineer the form data needed to send messages to pagers. - Javascript, HTML, CSS
- **Snake** - Mobile friendly JS implementation of the game Snake - Javascript, HTML, CSS

Technologies and Languages

- Javascript, HTML, CSS, NodeJS, React, Axios, Express, MongoDB
- Linux, Bash, Git, Github, NPM, Adobe Photoshop and Lightroom

Education

Crete, Nebraska	Doane University - B.S. Chemistry	2007-2012
------------------------	--	------------------

- Publication: [Sulfonated Ni\(II\)porphyrin improves the detection of Z-DNA in condensed and non-condensed BZB DNA sequences](#)