



David Geng

*BS in Environmental  
Chemistry from Purdue  
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### What have you been doing since the publication of your article in *JPUR*, volume 2?

Initially, I took a position in the field of biotechnology working as a manufacturing chemist at Antech Diagnostics, which was located in the Purdue Research Park. The company is a subsidiary of VCA Antech, which is the largest veterinary firm in the country, and that facility produced in-vitro diagnostic products for veterinary use. That position utilized my chemistry knowledge and skills in a variety of ways with regards to wet chemistry techniques, process methodology, and quality control analysis.

Currently, I am the lead analytical chemist for Essex, a Superior Essex Company, located in Fort Wayne, Indiana. Essex is one the largest magnet wire producers in the world, and my role is in a central division laboratory that uses analytical chemistry techniques to support both internal and external customers. This position is focused mostly on polymer science and how the coating on the wire affects magnet wire properties. Analytical chemistry is exciting due to the fact that everyday there is something new and there is always a chemistry technique or instrumentation to help solve the problems that arise.

### What are your career goals?

My career goals include continuing to build my technical expertise in the field of polymer science, to develop my management skills to more effectively manage my team of technicians, and to continue striving to provide excellent customer service to all of those affected by the products my company produces.



### How did the research you did as an undergraduate at Purdue impact your current endeavors? What is the value of undergraduate research?

I believe that I draw on many of the skills and thought processes that I developed in undergraduate research every day. The ability that one gets from the independent thinking, process troubleshooting, and scientific exploration is something that is difficult to teach in a classroom setting but is paramount to success in industry. I would strongly recommend anyone in any STEM program to seriously pursue undergraduate research to help facilitate those skills to better their opportunities and the world in the future.

### How did the faculty mentor relationship impact you during your time at Purdue?

Though the act of doing research builds a certain skill set, the way one implements those skills and builds confidence is facilitated through that person's research advisor. I was lucky enough to have a professor who had significant experience with undergraduates, who made the work exciting, and who legitimately wanted to see me succeed. The relationship between that mentor and you can be significant and can benefit someone long after the research is concluded.

**How did the experience of publishing an article in *JPUR* benefit you? What advice would you give to other undergraduates at Purdue who are interested in contributing to the journal?**

Publishing in *JPUR* was a strong motivator and helped to legitimize the work and effort that comes with extracurricular undergraduate research. With such a large undergraduate community at Purdue and so few slots for the journal, it was not the only reason for pushing so vigorously, but it stoked the passion to be dedicated to the science that was being accomplished. I would advise all undergraduates who are doing undergraduate research to at least go through the steps that are required when publishing, like data analysis, technical writing, and the promotion of science. Pursuing publishing allows one to engage in the larger picture of science and to see how the science being taught in classes actually applies to the entire world.

**What advice would you give to other undergraduates at Purdue who are interested in doing research?**

I believe that everyone should try to pursue undergraduate research. It will develop abilities that a person can use for years to come in industry or especially in academia. If there is even the slightest chance that a person wants to pursue graduate school, then undergraduate research goes a long way to helping that person succeed in his or her career goals.

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Geng, D. (2012). Is distant pollution contaminating local air? Analyzing the origins of atmospheric aerosols. *Journal of Purdue Undergraduate Research*, 2, 16–21. <https://doi.org/10.5703/jpur.02.1.03>