# Ethan W. Rietz

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## Education

**Oregon State University** *Jan 2021 - Aug 2022*

*Bachelor of Science: Computer Science (GPA: 4.0)*

**Indiana University Bloomington** *2019 - 2021*

*Ph.D. Student: Physical Chemistry and Scientific Computing (GPA: 3.76)*

**Iowa State University** *2013 - 2017*

*Bachelor of Science: Biochemistry (GPA: 3.51)*

## Professional

**Rush ReCommerce** *Jan 2023 - Now*

*Software Engineer*

- Developed APIs for software used internally by employees, APIs for a web application provided to vendors and third party logistic warehouse partners, and an external API used directly by vendors.
- Integrated Logicbroker, a drop ship solution, into the existing Shopify eCommerce platform. The integration included automated product and inventory feeds, order creation, shipment handling, and invoice processing for 100+ vendors with zero human interaction.
- Developed APIs for a SaaS application provided to vendors to process online returns at their own facilities.
- Worked on a geographical display engine which obtains ship costs and calculates profit margins for the major US metros.

Tech Stack: Node.js, MySQL, RabbitMQ, Azure

**Werner Enterprises** *Apr 2021 - Nov 2022*

*Software Intern (Oct 2021 - Nov 2022)*

- Worked on a real-time data sync application between legacy Werner applications and the Mastery Logistics Systems Mastermind TMS. Worked quite extensively with Azure Service Buses.
- Developed mobile applications using the Ionic framework and C#/.NET on the back end.
- Wrote extensive unit and integration test suites using MSTest.

Tech Stack: C#, TypeScript/Angular, Azure, SQL Server, Entity Framework

*Software QA Intern (Apr 2021 - Oct 2021)*

- Tested APIs, UIs, and mobile devices using a variety of testing methods.

Tech Stack: Postman, Perfecto, AS400, Db2, Azure Cosmos DB, Python, JavaScript

**Agilent Technologies** *2017 - 2019*

*Manufacturing Associate*

Manufactured liquid consumable products (gels, buffers, DNA/RNA ladders and markers) for Agilent's capillary electrophoresis instruments in an aseptic environment.

**Limnology Laboratory** *2014 - 2015*

*Chemistry Technician*

Worked in a laboratory certified by the Iowa Department of Natural Resources to analyze water nutrients for the Iowa Lakes Survey Monitoring Program.

## Research

**Indiana University** *2019 - 2020*

*Research with Professor Srinivasan Iyengar*

- Worked on high performance Linux computing clusters to study non-classical carbocation systems computationally.
- Used Ab initio molecular dynamics, density functional theory, and vibrational spectroscopy methods to understand energy redistribution in anomalous carbocations and hydrogen bonded systems.

**Iowa State University** *2016*

*Research with Professor Levi Stanley*

- Studied the catalytic activity of metal-organic framework compounds and asked if the steric and electronic properties of MOFs are tunable upon functionalization of the linker units

## Teaching

### Indiana University - Associate Instructor

**C117: Principals of Chemistry and Biochemistry - *Head AI* (Fall 2020)**

Oversaw four Associate Instructors, two undergraduate teaching assistants, and led weekly meetings
Organized over 25 instructors to proctor examinations
Made all exams, worksheets, and Canvas material for the course for over 600 students

**C117: Principals of Chemistry and Biochemistry (Spring 2020)**

**C103: Introduction to Chemical Principals (Fall 2019)**