

---

# Charlene Orr

charlene.orr@alumni.purdue.edu | <https://github.com/charlorr> | (574) 377-5803

---

## TECHNICAL SKILLS

Languages: Fluent in Python, C/C++, HTML, CSS and SQL; Experience with Java, JavaScript

Frameworks: Fluent in React; Experience with Ruby on Rails, Django

Technologies/Tools: Experience with Git, Jenkins, Jira, REST, Grafana, GraphQL, Postman

---

## EXPERIENCE

### Software Engineer at Autodesk

June 2021-Present

Worked with globally distributed scrum teams to develop and maintain the API used by Autodesk flagship CAD products to translate geometric data between file types.

- Redesigned and rewrote a cross-platform, Perl-based test system in Python to improve speed, maintainability, and analysis of results. Published resulting test data to a Grafana dashboard.
- Worked with CAD product teams to implement highly requested changes to the translation API, saving client engineers thousands of hours.
- Troubleshoot and improved Jenkins CI/CD pipelines for cross-platform test and release of C++ binaries.
- Documented and executed the official release process, including validation of builds before release. Coordinated with multiple teams to triage dependency and compatibility issues.
- Automated translating and visually checking hundreds of models for defects. Used a visual similarity score to compare model geometries across source control revisions.
- Created project roadmaps and coordinated sprint work for several concurrent projects as Product Owner.
- Led scrum ceremonies and encouraged Agile practices as Scrum Master.

### Software Engineering Intern at Autodesk

May 2020-August 2020

- Worked on code modernization project to utilize newer features of C++, including lambdas, smart pointers, RAII.
- Implemented precompiled headers to speed up build times.
- Eliminated tech debt in C++ codebase resulting in cleaner, safer, more efficient code.
- Used extensive test suite to identify bugs and ensure code quality.

### Software Engineering Intern at Lessonly

June 2019-August 2019

Designed and developed a user authentication feature for an internal tool used by the entire company to track departmental objectives.

- Learned and implemented GraphQL queries to store and retrieve user favorited objectives.
- Implemented a third-party library to allow employees to log in with Google accounts.
- Worked on a cross-functional squad to implement production features used by hundreds of users a day.
- Developed features across the full stack, using ReactJS and Ruby on Rails.
- Wrote detailed testing notes for use by other engineers and QA.

---

## PROJECTS

### Trace – a digital footprint tracker

January 2021-May 2021

A privacy-focused tool for discovering, tracking, and sharing your online accounts.

- Built responsive, reusable React components that visualize search results, analytics, authentication, and saved accounts in the web app.

---

## EDUCATION

### Purdue University

July 2017-May 2021

Bachelor of Science in Computer Science

---

## RELEVANT COURSES

- |                                  |                                       |                        |                         |
|----------------------------------|---------------------------------------|------------------------|-------------------------|
| ▪ Data Structures and Algorithms | ▪ Object-Oriented Programming in Java | ▪ Systems Programming  | ▪ Computer Architecture |
| ▪ Database Systems               | ▪ Operating Systems                   | ▪ Software Engineering | ▪ Programming in C      |