

# Conor Lansford [conorlansford.com](http://conorlansford.com)

10 years experience in software development and validation, with specialization in automation and cloud application building. I pride myself in writing code that others can easily understand, is well documented, and extensible.

## EXPERIENCE

### Tesla, Staff Software Engineer in Test – Autopilot QA

March 2022 - June 2022

Led a small team tasked with validating and monitoring all incoming telemetry from the global Autopilot fleet. Administering and monitoring ETL pipelines in AWS to detect regressions programmatically, informing common failure cases for bugfix priority, and reporting results in real time to the rest of the organization.

### Tesla, Senior Software Engineer in Test – Autopilot QA

February 2020 - March 2022

- QA owner for tracking and driving down all stack traces and kernel panics on the autopilot computer in the fleet. Implemented an in house microservice telemetry ingestion application feeding to on prem Sentry instance with custom alerting. Stack: python, celery, rabbitMQ, S3, Clickhouse
- Developed test drive scheduling web application in React and Golang, with backend in Postgres used by the entire Autopilot software organization.
- Implemented daily reporting system and various features for proprietary open loop automated testing framework written in Django, React.js, and RabbitMQ.
- Built autoscaling system for automatically indexing and categorizing tens of thousands of incoming telemetry records an hour using AWS EC2, S3, and SQS, written in Golang.
- Created reporting and metrics application used by the drive testing team to communicate drive test results using React.js, Python, fastAPI, Redis, and Postgres.

### Tesla, Software QA Engineer – Autopilot

April 2016 - February 2020

- Built an automated reporting and visualization framework for test results using Postgres, Python, Pandas, and Jinja2 which were presented to executives regularly.
- Lead Autopilot QA engineer for Model 3 start of production.
- Lead QA engineer for Autopilot maps project including writing test automation tools in Python.

### Tesla, Field Test Engineer – Infotainment

June 2014 - April 2016

- Contributed to proprietary infotainment automated test framework with media player tests written in ruby.
- Prototyped an in house Autopilot issue mapping tool using React, Meteor, and MongoDB.
- Main tester for traffic, trip planner, energy prediction, and parking sensor UI.
- Responsible for validation and test plans of the entire Autopilot stack, including sensor integration over CAN, perception, controls, mapping, computer vision, neural networks, and user interface.

### Hewlett Packard, Software Development Intern

May 2011 - May 2014

- Developed in Java Spring with a SQL database backend, utilizing a RESTful API interface to the javascript/jquery web client front end.
- Built and completed apps for webOS, including the pre phones and touchpad.

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## SKILLS

Jira / Xray / TestRail  
Django / Flask / fastAPI  
Redis / Celery / RabbitMQ  
Python / Pandas / Matplotlib  
Javascript / React / Postman  
PostgreSQL / ElasticSearch  
Docker / Jenkins / Celery  
EC2 / S3 / SQS / RDS  
Grafana / Cloudwatch / Sentry  
Prometheus / Kubernetes  
Rhino3D / 3D Printing / CAD

## PERSONAL PROJECTS

[Pulsar](#) - LED dragon art project. Controlled via bluetooth, it animates the scales on its back to a beat in various colors and patterns. Involved custom circuit and firmware design. Code is [open source](#).

[RFID Door Lock](#) - Custom designed sliding door locking/unlocking robot. Used a servo, microcontroller, speaker, and RFID reader to remotely lock/unlock a sliding door through glass. Enclosure was designed in Rhino3D and 3D printed. Code and circuit are [open source](#).

## EDUCATION

**Colorado State University**  
Bachelor's Degree  
Applied Computing Technology  
-Computer Science Department  
GPA 3.461  
2010 - 2014