# Logan Stack

Software engineer with B.S. in computer science and 3 years' experience at a top company in the automotive industry. Developed algorithms for camera quality control in autonomous vehicles and co-authored the pipeline for embedded vehicle software. Seeking to leverage proven expertise for a new and challenging software engineering role.



## **Work Experience**

## Software Engineer II - General Motors (Autonomous Vehicles)

Detroit, MI · 2022 - Present

- Taught myself React and Flask in order to build a web application that hosts in-house software for our camera, lidar, and radar teams
- Developed 6 unique tools with Python for the evaluation of image properties such as color and clarity
- Used YOLOv7 object detection algorithm and gimbal hardware API to automate camera target testing
- Increased runtime efficiency of a patent-pending modulation transfer function (MTF) algorithm by 55%
- Designed a color filter array in Python that contributed to an intrinsic camera calibration software
- Mentored three junior software engineers, supervising their work and career growth

#### Dev Ops Engineer - General Motors (Vehicle Motion and Embedded Controls)

Detroit, MI · 2019 - 2022

- Co-authored a Jenkins-based continuous integration & continuous development pipeline, written in Groovy, that is responsible for regularly building, testing, and logging 65 software components
- Wrote a script in Python that detects build errors and reports them directly to the offending author
- Utilized Python and Git repository history to automate the generation of release letter content for Electronic Control Units, serving as official business records with 10 new records being generated daily
- Devised an algorithm for the automated archival of ILM compliant material

#### **Software Engineer Intern** – Michelin

Greenville, SC · 2018 - 2018

- Authored a repository migration application to automatically transfer data from Subversion to Git using the Grails framework
- Created a blockchain to track resource allocation and value analysis in End User Experience using Multichain, MongoDB, Express.js, Angular 6, and Node.js

#### Education

# **B.S. in Computer Science** – The Pennsylvania State University

University Park, PA · 2015 - 2019

#### **Technical Skills**

Languages - Python, Java, Groovy, C++, C, Javascript, HTML, CSS, MySQL, Lua, Perl Tools & Frameworks - Spring, Flask, React, Node.js, Electron, Bootstrap, Git, Jira, Jenkins, Docker, Kubernetes Certifications - SAFe 5.1, Design for Six Sigma (DFSS)

#### **Projects**

picture\_book Python

 A program that uses DeepAl generated images to add illustrations to books by using topic modeling to determine the central theme of each page

Google Trends game Javascript, Express.js, React, HTML, CSS, Bootstrap

An online game developed with the Google Trends API to guess categorical search term popularity