Logan Stack

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Detroit, MI

Work Experience

Software Engineer II – General Motors

Detroit, MI · March 2022 – Present

- Interfaced with camera, LiDAR, and radar teams to build a web application that houses all sensing-related software tools using React, Node.js, and Flask
- Automated camera target testing using YOLOv7 object detection algorithm and gimbal hardware API, increasing accuracy to a sub-pixel level and saving 16 hours of manual testing per camera
- Increased runtime efficiency of a patent-pending modulation transfer function (MTF) algorithm by 55% by reducing expensive calculations in unnecessary areas
- Developed 6 unique tools in Python for the evaluation of image properties such as noise and clarity
- Designed a demosaicing algorithm to aid in evaluating the color difference of supplier image sensors
- Mentored six junior software engineers (two at a time), supervising their work and career growth

DevOps Engineer – General Motors

Detroit, MI · Sep 2019 – Mar 2022

- Co-authored a Jenkins-based CI/CD pipeline in Groovy, managing 65 vehicle software components
- Utilized 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
- Implemented a build error detection system that reports issues directly to the offending user
- Devised a system for automated archival of data to support information lifecycle management policies

Software Engineer Intern – Michelin

Greenville, SC · May 2018 – Aug 2018

- Engineered a repository migration application using the Grails framework, enabling the automatic transfer of project data from Subversion to Git
- Created a blockchain app to track resource allocation and perform value analysis 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, C++, Java, Groovy, Javascript, HTML/CSS, MySQL, Lua, Perl, Bash
Tools & Frameworks - Flask, React, Node.js, Electron, Bootstrap, Git, Jira, Jenkins, Docker, Azure, Linux
Certifications - SAFe 5.1 (Scaled Agile Framework), Design for Six Sigma (DFSS)

Projects

picture_book   Python
- Used topic modeling to determine central themes in PDF pages and add DeepAI-generated illustrations accordingly, enhancing visual content

OpenGL Shader   C++, GLSL
- Developing a custom pixelated water shader for a video game using OpenGL