Kyle Lare

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EXPERIENCE

Computational Engineer Nov 2021 – Present

Railspire | Dallas, TX

Hired on as the third software engineer at a fast-paced pre-revenue startup with large ambitions of automating the rail industry. Working directly under one of the two cofounders and wearing many hats along the way including, but not limited to, data scientist, software engineer, and systems integration tester.

Key Accomplishments:

- Pitched and implemented an ETL data pipeline for analyzing and storing system data to provide proactive customer support, software error detection, and queryable results using JSON, Python, and MongoDB
- Significantly reduced engineering software testing hours by co-developing a batch-processing simulation tool using Flask, Docker, Python and RabbitMQ
- Designed, developed and maintained several software applications using Python and QT for testing and debugging safety-critical locomotive systems
- Led a push for increased documentation efforts, converted all existing documentation to LaTeX and developed a pipeline for automating the document review process
- Collaborated with cross-functional teams to design and analyze a series of experiments for quantifying noise in a GPS-RTK system

Student Researcher May 2020 – June 2021

Rice University | Houston, TX

- Developed a polymer model for a protein network interaction with DNA using Python and GROMACS in the Center for Theoretical Biological Physics at Rice
- Analyzed simulation trajectories and created informative visuals using Numpy, Matplotlib and Seaborn
- Presented results to the Onuchic-Wolynes research groups at Rice University (Oct 2020) and at the University of Houston's 2020 and 2021 Undergraduate Research Day events

Undergraduate Researcher June 2018 - May 2020

University of Houston | Houston, TX

- Debugged Dr. Greg Morrison's patent sorting machine learning algorithm via analysis of large text files (~10 million lines) of unstructured data.
- Worked under Dr. Mini Das on improvement of x-ray technology via digital filter processing in Python

EDUCATION

University of Houston | Bachelor of Science in Physics, Minor in Mathematics   May 2021

SKILLS

Python | Data Science | Machine Learning | ETL | LaTeX | Git | Linux | SQL | PostgreSQL | MongoDB | Pandas | NumPy | PyQt |