West Sacramento, USA
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Aleksey Zasorin

https://github.com/AlexZasorin

Work Experience

Student Assistant Software Engineer **Caltrans** **September 2019 – April 2022**
Research, Innovation and System Information Sacrament, CA/Remote

- Developed automation feature using a random forest machine learning model. Feature resulted in a 50% reduction in user workload. Used Weka 3 to train the model and implemented it into a Java application using the Weka library.
- Improved performance of computer vision software for vehicle detection from recorded traffic footage. The improvements resulted in more accurate detection and reduced false positives. Used the OpenCV library and Java to develop improvements.
- Implemented a semantic versioning scheme and a process for publishing releases of the software. This made the latest version of the software more accessible to internal users.

Languages & Technologies

- Languages: Java, Python, R, Julia, C, Cuda C
- Databases: Postgres, MySQL, SQLite
- Technologies: Git, AWS (EC2, S3, Glue, SQL), OpenCV, Weka, OpenStack

Education

California State University, Sacramento **Aug 2015 - Dec 2021**

- **B.S. Computer Science**
  Coursework: Data Structures and Algorithms, Cloud Computing, Programming Operating Systems, Compiler Construction, GPU Programming
- **B.A. Mathematics, Statistics Emphasis**
  Coursework: Probability Theory, Linear Algebra, Statistical Computing, Big Data Processing
- **GPA:** 3.5

Projects

Sentiment Analysis of 2020 Election

- Analysis of Twitter tweets posted around the time of the US 2020 election with visualizations. Using sentiment analysis, I trained a linear model to predict the outcomes of battleground states. The model predicted 10 out of 12 states correctly using the other 38 states as training data. Built in R using ggplot2 and dplyr. See the code on Github.

Discord Statistics Bot

- Discord bot to visualize the activity and statistics in a Discord server. The bot can generate custom word clouds and analyze user vocabulary using natural language processing. Built in Python using pandas, asyncio, and nltk. See the code on Github.