Tanner Skluzacek

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Education

University of Minnesota - Twin Cities **May 2022**
Bachelor of Science with High Distinction in Computer Science, Mathematics, GPA: 3.93 *Minneapolis, MN*

Industry Experience

Amazon **Aug. 2022 – Jan. 2023 (Layoff)**
Software Development Engineer I | Sort Tech *Minneapolis, MN*

- Collaborated with a team of four engineers to release an optimization service running at over 90 sites to dynamically move labor based on incoming work which provided a 20% reduction in package cycle time.
- Created and owned a dashboard for shift managers to monitor algorithmic move requests at Sort and Fulfilment Centers using ReactJS for the frontend and Java/GraphQL to handle the backend data APIs for 20,000+ messages/day.
- Developed and maintained a full-stack application for managers to modify their site's input configurations for their algorithmic labor moves, allowing for the onboarding of 68 sites before the holiday while freeing up developer effort.
- Refactored our team's frontend web and Android applications with automations to extract and import translations for over 40 languages, allowing users to view our products in their preferred language in time for international rollout.
- Iterated on the Java backend algorithms and JUnit unit-testing for labor moves, including the addition of safeguards for site map verification and more granular package forecasting.
- Ensured our services had high availability during the busy holiday season by leveraging technologies like AWS Cloudwatch and SNS and implementing additional logging, metrics, and alarming.

Lyft **May 2021 – Aug. 2021**
Software Engineer Intern | Map Delivery *San Francisco, CA*

- Transformed production infrastructure to allow feature sets of Lyft's in-house map to be independently sourced, leading to 70% faster releases for maps with the updated road network from OpenStreetMap.
- Created database automations in Python for creating, storing, and releasing map vector tile datasets, allowing for enhanced traceability between in-house map releases – a crucial step in Lyft's migration off of the Google Maps APIs.
- Improved the user experience of navigating the map in the Lyft app by extending the ingestion of map data from OpenStreetMap to include forest and other grassland areas using Python and Apache Spark.

UnitedHealth Group **Jun. 2020 – Dec. 2020**
Software Engineer Intern | Image Processing *Eden Prairie, MN*

- Reduced a program's optical character recognition calls to Azure by 10x by developing an optimization in Python to combine multiple image requests into one and map the outputs.
- Created, tested, and deployed REST APIs that set up an in-house image processing platform which allowed engineers to save and run computer vision scripts on batches of medical documents.
- Utilized Python's OpenCV library to increase the training data for a neural network from 30,000 to 500,000 images.

Technical Skills

Languages: Java, JavaScript (React), Python (pandas, NumPy, etc.), C/C++, SQL
Technologies: AWS(DynamoDB, S3, Lambda, etc.), GraphQL, JUnit, Docker, PostgreSQL, Git/GitHub, Jenkins, Apache Spark
Operational: Unit Testing, Integration Testing, Monitoring, Scaling, Microservice Architecture, Data Modeling, CI/CD

Projects

Mathematics Senior Capstone | *Machine Learning, Python, TensorFlow* | Link **May 2022**

- Applied transfer learning on the SimCLR contrastive learning framework to predict chest radiograph images as typical or atypical as related to COVID-19 detection.

Maze Solver | *Pathfinding, Graph Algorithms, Python* **Mar. 2021**

- Used Python and image processing libraries to create a program that takes an image of a maze and visually finds a solution path by converting the maze image into a graph problem.
- Applied pathfinding algorithms like A* and breadth-first search to create and compare solution paths for a given maze.

Leadership

College of Science and Engineering Peer Mentor **Sept. 2019 – May 2022**
Computer Science Department Teaching Assistant **Spring 2020 and Spring 2022**