Kayla Ippongi

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Education

Johns Hopkins University, M.S, Artificial Intelligence 2021 – 2024

Relevant Coursework: Deep Neural Networks, Intelligent Algorithms, Creating AI Enabled Systems, Deep Learning for Computer Vision, Cognitive & Behavioral Foundations for Artificial Intelligence, Machine Learning, Artificial Intelligence, Foundations of Algorithms, Multivariable Calculus

Boston University, B.A, Computer Science 2016 – 2019

Relevant Coursework: Data Structures & Algorithms, Artificial Intelligence, Data Science in R, Linear Algebra, Data Mining, Computer Systems, Data Mechanics, Data Science in Python, Concepts of Programming Languages, Intro to Databases, Intro to Computer Graphics

Technical Skills

Languages & Web frameworks:
Python, TypeScript, GraphQL, React, Java, NodeJS, Jest, Flask, Django

AI / ML Frameworks & Libraries:
Tensorflow, Keras, Scikit-Learn, Pandas, NumPy

Tools & Infrastructure:
Amazon Web Services, Serverless, Terraform, DynamoDB, MongoDB

Experience

Rivian | Senior Software Engineer Palo Alto, CA | Sept 2022 – Present

- Led integration of 3rd party platform, AutoIntegrate, implementing their **SOAP** API's into our **Typescript, GraphQL** backend and **React** frontend, to automate Fleet authorization workflows - replacing manual processes and reducing ~131 labor hours/day, and $2M annually in operational savings.
- Optimized API latency for service pricing endpoints, decreasing average wait time from 15s to 1.5, achieving a 10x speed improvement and an estimated $6M in annual wait time savings
- Migrated customer e-signature services and API's from OneSpan to Box API's using **Typescript**, **GraphQL** and **AWS Lambda**, ensuring feature parity and seamless customer experience while improving backend scalability and maintainability for long term growth
- Led technical design discussions and authored design documentation on high-level implementation strategies and trade-offs for new services or larger architectural changes with cross functional engineering stakeholders

Rivian | Software Engineer Palo Alto, CA | April 2021 – Sept 2022

- Designed and implemented backend services for Rivian's Recall and Quality Containment dashboard using **Typescript**, **GraphQL**, **AWS Lambda, StepFunctions and DynamoDB**, reducing manual tracking efforts and accelerating issue resolution across thousands of serviced vehicles
- Improved recall data retrieval speed by 6x by leveraging **ElasticSearch**, implementing indexing and querying strategies for high-volume data processing.
- Triaged and resolved critical production bugs, collaborating directly with stakeholders and users to ensure high service reliability and satisfaction

Wayfair | Software Engineer Boston, MA | July 2019 – Feb 2020

- Developed and maintained features on the Storefront Product Options team using **PHP**, **GraphQL**, and **React**, improving consumer engagement and product visibility across millions of products.
- Worked cross-functionally with other engineering teams to remove dependencies on our service and help cutover other teams to our new API. Contributed to our team's API that services all product option data on website
- Implemented multivariate and A/B feature tests for Wayfair and it's three partner sites, leveraging our lead image algorithm, to determine best images across 20 different product classes in preparation for the company's largest sale day
- Refactored and optimized stored **SQL** procedures, improving backend performance of production option data queries that service thousands of live products

IBM Cloud | DevOps Developer Intern Dallas, TX | May 2018 – July 2018

- Developed and deployed a REST API for the Cloud Operations security team to help optimize Kubernetes port lookup process for internal services. Built utilizing **Python** Kubernetes client, **Flask**, **Kubernetes**, **Docker** and **Minikube**

Projects

ASL Isolated Gesture Recognition (Github): Built a custom CNN using TensorFlow/Keras to classify sign language gestures from video frame data, implementing data preprocessing, frame sampling, and multi-class model training to establish a strong baseline accuracy

Predicting Writing Quality (Github): Developed pipeline for predicting writing quality using a stacked regression model and custom preprocessing, integrating CatBoost, Random Forest, and MLPRegressor models with a linear meta-learner, and validating results with RMSE