

Yang Yuan

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Professional Summary

Motivated master student with a focus on artificial intelligence, committed to making meaningful contributions to the field. Eager to engage in cutting-edge research, collaborate with esteemed professionals, and contribute to the ongoing progress of machine learning and computer vision.

Work Experience

Senior Cloud Developer | IBM | Pittsburgh | PA

Sep 2021 – Jun 2023

Delta Zulu

- Core technology: **Spring Boot + AWS + OpenShift**
- Worked on design and implementation of a **hybrid cloud** architecture, leveraging **OpenShift** for on-premises deployments and **AWS** for public cloud integration.
- Leveraged AWS services such as **S3, VPC, Lambda** and **API Gateway** to enhance application functionality, data storage, and processing capabilities in the hybrid environment. Implemented **AWS Codepipeline** for monitoring pipeline to achieve automated **CI/CD** process.

Internship | Nullmax | Shanghai | China

June 2019 – Aug 2019

End to end learning (<http://blog.leanote.com/post/hljyy96@126.com/e2e>)

- Core technology: **CNN + Variational Gaussian Mixture Model + Open Street Map (OSM)**
- Reproduced a comprehensive visual solution for self-driving cars, achieving driving behavior comparable to that of humans based on ICRA 2019 best paper. Implemented an **end-to-end** system, encompassing image input, control prediction, and real-time map integration.
- Designed and implemented a CNN and **GMM**-based network, leveraging inputs from forward and side cameras, as well as real-time map images. The model produced precise **curvature** values, which can be used for direct vehicle control. Achieved **r2 score** of **0.86** and visualized the results using **Bezier curves**.
- Significantly minimized reliance on lane detection, obstacle detection, and route planning systems, reducing computing dependencies for high-precision facilities such as U-blox and RTK.

Academic Project

Kaggle Project | Pittsburgh | PA

Feb 2019 – Mar 2019

Santander Customer Transaction Prediction

- Core technology: **XGBoost + LGBM + K-fold cross-validation + AWS**
- Constructed a robust model using 200 selected features to predict customer payment behavior.
- Utilized **XGBoost** and **LightGBM** to train and optimize the models, comparing their performance in terms of prediction accuracy, classification metrics, and computational efficiency. Deployed on **AWS**.
- Utilized feature engineering to generate additional features to perform an **ensemble** approach, increased the prediction accuracy and finally placed within the top **7%**.

Certifications

AWS Certified Developer – Associate, AWS Certified Solution Architect - Associate

Education

University of Pittsburgh, Pittsburgh, PA

Aug 2018 – Apr 2020

Master of Science, Information Science, GPA: 3.65/4.0