Yinglun (Leo) Suo

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Work Experience

Manitoulin Transports

2021/04 - 2023/08

Web and Mobile Developer

- Mississauga, ON, Canada
- Migrated the company's internal management website from Perl to a **microservices architecture using Vue and Python Django**. Conducted daily maintenance and debugging to enhance user experience and operational efficiency.
- Optimized the website's shipping notice report feature by transitioning from SQL queries to the **Django QuerySet API**, reducing website loading latency by **50**% while managing over **30,000 records** of report data from the database.
- Improved website security by **implementing VPN authentication and an advanced 2FA process** (i.e. email/phone verification with security questions for password reset requests), which effectively prevents unauthorized actions.
- Customized the **Vue-Quasar table component** to enable searching and sorting by column, allowing users to save progress. Integrated with the **Google Cloud Console API** to export reports in Google Spreadsheet format.
- Revamped the company's shipping notification system by integrating the Twilio API, enabling **automated**, **real-time email/text notifications with GIF and URL**. User's subscription rates **increased by 15**% in first month of deploy.
- Developed a rating system to **collect user feedback across 10,000+ accounts**. Sent periodical feedback requests during the login process. **Optimized prompt frequency** based on user activity to ensure the collection of authentic and detailed feedback. Archived rating histories aiding in help reviews of system migrations performance.
- Designed automation script performing **file system traversal** on the specified server drive storage locations. Sent matched files to the IBM AS400 iSeries database. Deployed on kubernetes Cronjob **transferring over 200 doc/month**.

Education

Western University

2023/09 - 2024/12 (Expected)

Master of Engineering in Electrical and Computer Engineering - Software Engineering

London, ON, Canada

University of Waterloo

B. Math in Computer Science and Statistics Double Major

2016/09 - 2020/06 Waterloo, ON, Canada

Proiect

NLP model Comparison and Optimization on News Text Classification

2024/01 - 2024/04

- Leveraged cutting-edge models (BERT, RoBERTa, XLNet, ELECTRA, DeBERTa) and transfer learning on the AGnews dataset, utilizing NVIDIA RTX 4090 with FP16 acceleration and extensive hyperparameter tuning to improve accuracy and reduce training time. Employed AdamW optimizer and implemented continuous evaluation and early stopping techniques to enhance training stability, generalization, and prevent overfitting.
- Demonstrated RoBERTa as the top model with **highest accuracy**, **fastest convergence**, and **training efficiency** in both large and small-scale groups. Had significant **accuracy improvements** and efficiency gains over older models.

Online-Book Store 2023/09 - 2024/04

- Designed and developed an online bookstore system with book searches, cart management, and secure payment transactions using **JWT for authentication**. Integrated Google Firestore for robust data management.
- Utilized Google Firestore's plugin for **multi-media account login** options to enhance user accessibility. Also designed an **admin interface** for comprehensive user and web content management.
- Developed a **cloud-based infrastructure** using **Docker**, **Kubernetes**, **and Google Cloud Platform (GCP)**, enhancing the **scalability and reliability of deploying and maintaining** the Book Store project online.

Skills

- Programming Language: Python(Django, scikit-learn, TensorFlow, PyTorch), Javascript(Vue, Node), Java
- Database: MySQL, PostgreSQL, Firestore.
- Tool: Git, Docker, k8s, GCP, AWS, Jira