Jin Fan

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Work Experience

Software Engineer

Laserfiche

2022 - Present

Toronto, Ontario

- Migrated our AWS EC2 containers to a new architecture utilizing Kubernetes services, AWS SQS queues, and AWS SNS topics to improve the user experience and scalability of our application. Users were able to get instant feedback upon making requests, and the new service has not dropped a single request since the migration.
- Enhanced the performance of two C# microservices that made requests to our PostgreSQL database by implementing batch and asynchronous RESTful APIs. Our biggest clients with more than 20,000 users observed a runtime reduction of 93% when performing large-scale operations.
- Created RESTful APIs using Typescript and Node to serve client requests on our account control system. Daily unit, functionality, and webapi test results are monitored via Grafana dashboards, and they currently have a success rate of 98% over the last 90 days.
- Implemented a user feedback system written in **Python** and deployed via **AWS Lambda** functions. The system stored messages in **AWS Redshift** and **S3**, and allowed users to attach image and GIF files. After testing, the system was deployed to all user-facing products and is the primary way that we gather feedback from clients.
- Created an internal web application using Angular and Flask, enabling non-technical users to track their events in Redshift via drop-down menus. Managed the deployment with Docker containers, using Nginx as the reverse proxy for efficient application delivery.
- Executed a project to overhaul all user dialogues in our client-facing application using **Angular** and **Typescript**. Created reusable and extensible components that improved the developer experience, which led to the creation of user stories to refactor other front-end components in the same manner.

Software Developer

2021 - 2022

City of Toronto

Toronto, Ontario

- Led a project to create a web application using **Javascript** and **React** to visualize park utilization across the city. The application was used internally by city planners and policy makers to drive decisions on park maintenance and amenity development.
- Wrote and deployed Python scripts to automate the quarterly extraction of recreation program performance metrics, transitioning away from manual SQL queries. This automation reduced human error and decreased analysis times by 90%.
- Designed and created data visualization dashboards using **Plotly** and deployed internally with **Docker**. Optimized data accessibility and reduced internal ad-hoc data requests by **over 80%**.
- Created and documented an internal system to automate our data pipelines using a **Flask** server run on a remote host. Allowed our dashboards to be updated on a fixed schedule without manual intervention.

Software Developer Intern

2020

Doxim Solutions

Markham, Ontario

- Developed pattern recognition scripts in **C**#, streamlining the conversion process of legacy **PowerShell scripts** into concise and reusable **C**# **components**. This significantly reduced manual effort, enhanced code maintainability, and promoted codebase modernization.
- Extracted, transformed, and analyzed credit union user data from internal databases using **SQL** queries. The insights derived from this analysis contributed to strategic decision-making processes.
- Spearheaded the design and implementation of a dynamic **C# data pipeline**, facilitating seamless integration with a third-party database. This initiative improved the usability, reliability, and performance of our internal data flow.

EDUCATION

Master of Data Analytics

Western University · Ontario, Canada · 2019 – 2020

Bachelor of Medical Science, Biochemistry of Infection and Immunity

Western University · Ontario, Canada · 2015 – 2019

TECHNICAL SKILLS

Programming Languages: Python, Typescript, Javascript, C#, SQL, Bash

Frameworks: React, Angular, Entity Framework, Vue, RxJS, Express, Flask, Django, Plotly

Tools & Technologies: Kubernetes, PostgreSQL, Node, Docker, Redshift, S3, DynamoDB, Nginx, Kibana, Grafana, Git