Jay Fan

(416) 858-1488 | jingyangfan16@gmail.com | LinkedIn

Work Experience

Software Engineer 2024 – Present

Relay

- Led the design and technical discussions of a new integration system that would allow users to seemlessly integrate with 3rd party services (e.g. **Intuit Quickbooks**, **Xero**, **Gusto**, etc). Utilization of integration features **increased by 20%** compared to previously.
- Designed and implemented a new ingestion system using **AWS Lambda**, **S3**, and **dynamoDB** to enable users to directly upload bills onto our platform. This new workflow **increased the use of our bill pay feature by 50%**.
- Overhauled the onboarding flow of our expense management service using **React** and **TypeScript** to increase our conversion rate. The completion rate of the new onboarding flow was **45% higher** than the old design.
- Closely monitored the **datadog** logs in the alerts channel to keep a pulse on the health of our services. Tickets would be created and worked on for frequently reqeating errors to continuously improve our system, reduce technical debt, and reduce noise. The frequency of alerts was **reduced by about 20%**.
- Collaborated with cross-functional teams and product designers to create an in-house frontend component library using **React** and **Tailwind**. All teams have begun the migration process to adopt the component library, while the work to create more complex components is ongoing.

Software Engineer 2022 – 2024

Laserfiche

- 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 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 **React** 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.

Data Analyst & Integrator 2021 – 2022

City of Toronto

- 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%**.

Education

Master of Data Analytics

Western University · Ontario, Canada · 2020

Bachelor of Medical Science, Biochemistry of Infection and Immunity

Western University · Ontario, Canada · 2019

Technical Skills

Programming Languages: Python, TypeScript/JavaScript, C#, SQL, Bash, C

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

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