Jing Yang Fan

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TECHNICAL SKILLS

Languages: Python, Typescript, C#, SQL, C, Bash, PowerShell

Technologies: AWS, Node, Kibana, Grafana, Flask, ElasticSearch, Angular, React, Vue, Docker, Nginx

WORK EXPERIENCE

Laserfiche — Toronto, Ontario

Software Engineer – Account Control System Team — *2023 – Present, Full-time*

- Enhanced **C#-based** microservices to improve the performance of client-facing actions when run against a large number of users (10,000 to 30,000). **Runtimes were reduced by 93%**, allowing our largest clients to execute actions on their entire userbase in under 2 minutes.
- Identified performance bottlenecks in our services using **Kibana** logs and **Grafana** dashboards after observing unexplained spikes in CPU and Memory usage in the Test environment. Findings were pitched to the team, which resulted in a group effort to resolve the bottlenecks and a **60% reduction in memory leaks**.
- Implemented test coverage report generation in all **azure YAML pipelines** to help target projects that require more unit and/or integration testing. **4 out of 9 projects** were identified to be lacking the sufficient coverage of integration tests, so user stories were created to address these in the near future

Software Engineer – Product Intelligence Team — *2022 – 2023, Full-time*

- Developed and maintained **AWS Lambda** ETL functions to monitor product usage, capture events in **DynamoDB**, process data, and store data in **Redshift**. Designed architecture with reliability in mind, incorporating fallback strategies for failed events and enabling real-time error alerts across environments.
- Led the creation and maintenance of robust **CI/CD pipelines**, enabling automated building and deployment of projects. Utilized multi-stage deployment and rollback strategies to ensure seamless production updates without disruptions. Pipelines currently have a **success rate of 96%** over the last 6 months.
- Designed and implemented a user feedback feature for our flagship platform, enabling attachment of image and GIF files. Leveraged **AWS Redshift** for data storage, with a fail-safe mechanism for capturing failed instances in an **S3 bucket** for future reprocessing. Feature had a **success rate of 100%** over the last 6 months with no feedback messages lost.
- Created internal web applications using **Angular** and **Flask**, enabling non-technical users to track their events in Redshift via drop-down menus. Managed the deployment within **Docker** containers, leveraging **Nginx** as the reverse proxy for efficient application delivery.

City of Toronto — Toronto, Ontario

Software Engineer — *2021 – 2022, Full-time*

- Developed and implemented **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%**.
- Engineered and maintained analytical visualization dashboards using **Plotly**, leading the project from conception to deployment. Optimized data accessibility and significantly minimized ad-hoc data requests by **over 80%**.
- Collaborated with city planners, managers, and directors to advocate for the integration of analytical dashboards, enhancing data-driven decision-making across departments. This initiative led to increased dashboard adoption.
- Led a project analyzing cell phone usage data with **Python** to monitor changes in park visitation patterns during the COVID-19 pandemic. My findings informed division directors, driving actionable insights for park maintenance improvements.

Doxim Solutions — Markham, Ontario

Software Engineer — *2020, Co-op*

- Developed pattern recognition software, 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 internal data flow.

EDUCATION

Western University — Ontario, Canada

Masters in Data Analytics — *2019 – 2020*

B.M.Sci in Biochemistry of Infection and Immunity — *2015 – 2019*