Jing Yang Fan

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Technical Skills

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

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

Work Experience

Laserfiche Toronto, Ontario

Software Engineer *Dec 2022 – Present, 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 the flagship document management product, 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
- 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

Data Scientist *Mar 2021 – Nov 2022, Full-time*

- Authored **Python scripts** to automate the quarterly extraction of recreation program performance metrics. This eliminated the need for manual SQL pulls, which reduced human error and analysis times by **90%**
- Led the end-to-end design and development of analytical visualization dashboards using **Tableau**. This significantly reduced ad-hoc data requests by **over 80%**, enhancing team efficiency.
- Presented and advocated for the integration of our dashboards to city planners, managers, and directors. This resulted in greater dashboard usage and bridged the gap between decision-makers and data-driven insights
- Spearheaded the analysis of cell phone usage data using **Python** to track changes in park usage during the COVID-19 pandemic. Presented findings to division directors, guiding actionable insights for improved park maintenance

Doxim Solutions Markham, Ontario

Software Engineer *Sept 2020 – Dec 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

Projects

Cryptocurrency Dashboard

- Created a **React** dashboard application to display comprehensive information about different cryptocurrencies
- Fetched cryptocurrency data from a **REST** endpoint using **Redux toolkit**. Data included historical pricing, daily volume, news articles, exchanges, and more
- Application was made to be compatible on both mobile devices and desktop computers with varying display sizes. Utilized design components from **Ant Design** to achieve modernized look and feel

Generating Game Data Using REST API

- Built **Python application** to auto-generate rating reports for board games, by obtaining reviews and statistics from BoardGameGeek's API and feeding the data through a **Natural Language Processing** model
- Utilized application to identify common trends and key qualities in board game popularity

Education

Western University Ontario, Canada

Masters in Data Analytics *2019 – 2020*

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