SOPHIA ZHENG
Software Engineer

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Highlights

- Proficient development experience with web development with TypeScript, HTML, CSS, Git, ReactJS and Angular
- In-depth understanding of Data Structure, Algorithms and OOP principles
- Excellent communication skills and great team player
- Quick learner with strong self-motivation and enthusiastic individual handling multiple tasks

Work Experience

Software Engineer | Workday
2021.11 – Present

- Drove adoption of **Storybook** and **Cypress** that enhance engineer experience and provide better UI testing strategy for video & audio player.
- Implemented new features, fixed issues and improved performance for video & audio players with **ReactJS** and **Typescript**.
- Improved, tested and documented adoption of videoJS and HLS for Adaptive Bitrate Streaming via different browsers and platforms.
- Created **Cloudflare** CDN worker to fetch media contents from the **AWS S3** and enabled Adaptive Bitrate Streaming that reduced video stalls by 97% and reduced video manual quality change by 84%.
- Collected and visualized metrics on **Nimbus**, **Wavefront** and **Pharos** dashboards to monitor application performance and created alerts if the error rate goes beyond certain thresholds with **SQL** & **Terraform**.

Software Developer | IBM
2019.9 - 2021.10

- Implemented new features for IBM Sterling Business Transaction Intelligence Tool in Supply Chain Network to provide easier access for customers to track orders and inventories with **Angular** & **NodeJS**.
- Organized and participated in cross-team projects alongside more than 6 software engineers, and performed knowledge sharing after projects is accomplished.
- Diagnosed and analyzed project construction issues and lead the team to resolve 12 code conflicts within 2 days.

Software Developer Intern | IBM
2019.9 - 2021.10

- Worked in an Agile environment to develop and test applications.
- Implemented new features for Carbon Charts and Carbon Design System, provided unit tests and solved issues with **D3.js** and **Vanilla JavaScript**.
- Implemented and optimized the WYSIWYG chart customization tool for non-developers that can be shared and self-synced in various ways with **ReactJS** and **GraphQL**.
- Migrated WYSIWYG web application from **Angular** to **ReactJS** with **TypeScript**.

CV Research Assistant | York University CV Centre
2018.5 - 2019.4

- Analyzed and tested Auto Camera Calibration with Manhattan Frame Estimation and Unsupervised Crowd Counting.
- Evaluated and compared state of art CV algorithms for specified datasets via **Python** and **MATLAB**.

Skills

- **Languages:** TypeScript, Python, Java, SQL, Matlab, HTML, CSS
- **Framework & Tools:** ReactJS, Angular, D3.js, NodeJS, Git, Storybook, Cypress, Redux, GraphQL, Cloudflare, Terraform
- **AWS:** EC2, S3, Lambda

Education

- **B.Sc. Honors, Computer Science**
  York University (2016.1 - 2021.4)

- **Machine Learning Certificate**
  Stanford University via Coursera (2017)

- **Graphic Design Advanced Diploma**
  Seneca College (2014.1 - 2016.1)

Projects

RSME web Application 🔗

- A web application that auto-generate resume in PDF based on LinkedIn profile information via LinkedIn **RESTful API** and **OAuth2** and gets code contribution chart from GitHub with given username
- The project is written in **Node.js** and **Express.js** with various of Node.js libraries.

Lane Detection 🔗

- An algorithm to recognize lane marks from random images and videos without camera calibration
- It includes image color analysis, filtering, perspective transformation and sliding windows
- The project uses **Python** libraries including **Matplotlib**, **OpenCV** and **NumPy**